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FRONT COVER: APPA's continually expanding list of public power innovations, beginning on page 24, is now maintained in an electronic data base, which in the future will be accessed and searched over telephone lines by members seeking up-to-the-minute information on innovative practices.

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Cost of Electricity in Major Cities Compared

AMONG THE NATION'S 30 LARGEST CITIES, cost of basic residential electric service is lowest in three cities served by municipally owned electric systems, and highest in 10 cities served by investor-owned utilities (IOUs).

The comparison of electric bills as of Jan. 1, 1983, by Jeannie Kilmer, APPA manager of statistics and data processing, is based upon utility reports to the U.S. Energy Information Administration.

The cost of 500 kWh of electricity ranged from 1.6 cents per kWh in Seattle, Wash., served by Seattle City Light, to 13.7 cents per kWh in New York, N.Y., served by Consolidated Edison Co.

Three of the cities — Cleveland and Columbus, Ohio, and Phoenix, Ariz. — are served by both public and private utilities. The cost of 500 kWh for the publicly owned systems was lower in Cleveland and Phoenix, higher in Columbus.

The 500 kWh bill reflects winter-rate charges for lighting, small appliances, refrigeration and cooking. The bills are calculated under rate schedules generally applicable to the majority of customers; utilities may have other rate schedules that produce bills different than those reported.

The nine publicly owned systems and their ranking for low-cost basic electric service among the 33 systems serving the 30 largest cities are:

- Seattle (Wash.) City Light (1st);
- Nashville (Tenn.) Electric Service (2nd);
- Memphis (Tenn.) Gas, Light and Water Division (3rd);
- Los Angeles (Cal.) Department of Water and Power (12th);
- San Antonio (Texas) City Public Service Board (16th);
- Jacksonville (Fla.) Electric Authority (18th);
- Cleveland (Ohio) Division of Light and Power (19th);
- Columbus (Ohio) Division of Electricity (21st); and
- Salt River Project, Phoenix, Ariz. (22nd).

The 10 private utilities with the most expensive 500 kWh service in the largest cities are:

- Consolidated Edison Co., New York, N.Y.;
- San Diego Gas & Electric Co., San Diego, Cal.;
- Philadelphia Electric Co., Philadelphia, Pa.;
- Boston Edison Co., Boston, Mass.;
- Commonwealth Edison Co., Chicago, Ill.;
- El Paso Electric Co., El Paso, Texas;
- Cleveland Electric Illuminating Co., Cleveland, Ohio;
- Duquesne Light Co., Pittsburgh, Pa.;
- Arizona Public Service Co., Phoenix, Ariz.; and
- Kansas City Power & Light Co., Kansas City, Mo.

APPA Executive Director Alex Radin, commenting on this first comparison of basic electricity costs in major cities, noted that only one of the nine public systems — Seattle — obtains more than one-third of its power from hydroelectricity, which is relatively low cost. Memphis and Nashville, he said, receive all of their bulk power supply from the Tennessee Valley Authority. Hydroelectricity accounts for only about 16 percent of TVA's generation, which is primarily coal-fired.

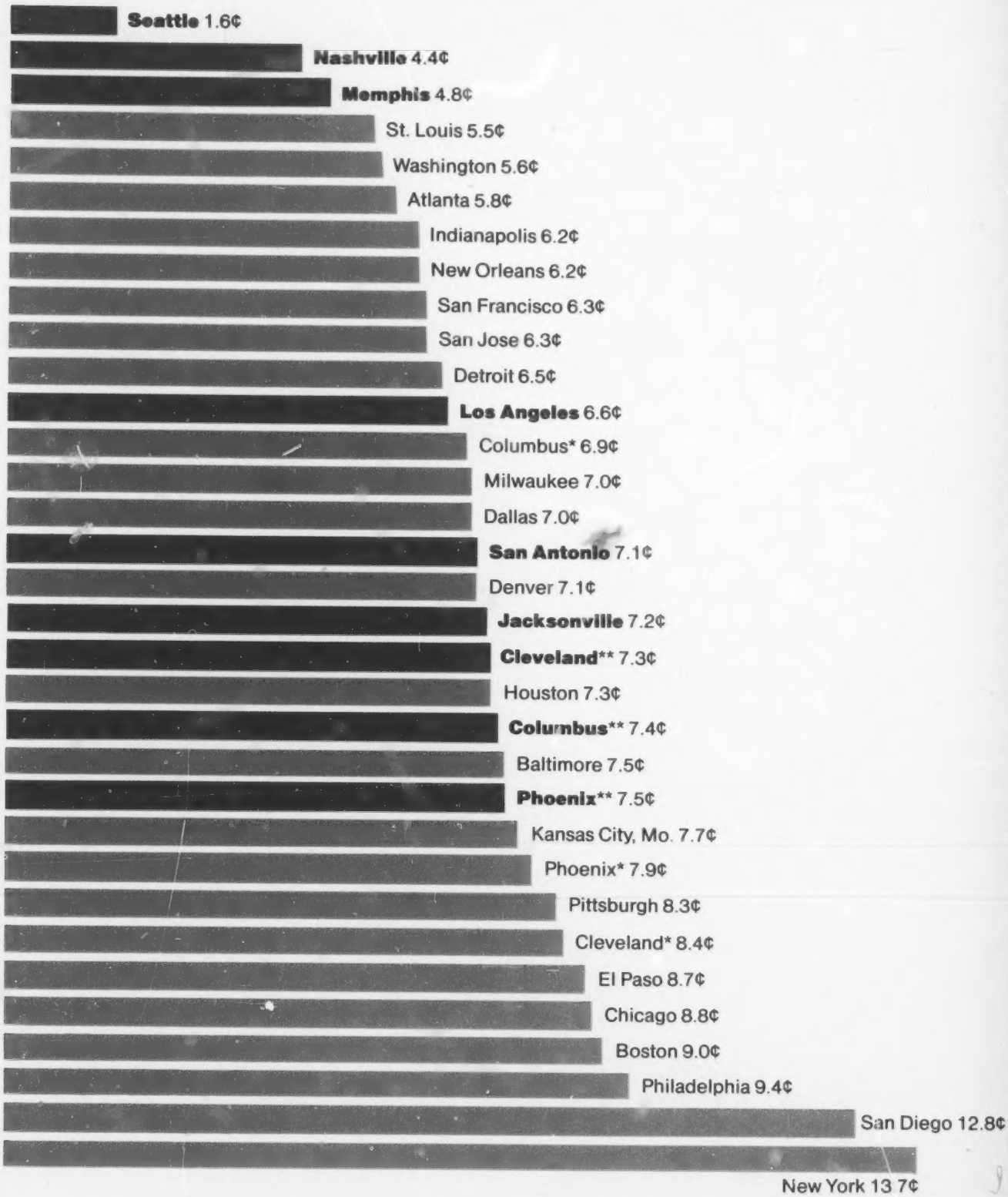
"I am pleased that public power systems are taking the lead in providing reasonable rates for the category of customers which includes many low-income households," Radin said.

Cost per kWh of 500 kWh of Electricity 30 Largest U.S. Cities—Jan. 1, 1983

City	¢ per kWh	Rank in cost
Seattle	1.6	1st
Nashville	4.4	2nd
Memphis	4.8	3rd
St. Louis	5.5	4th
Washington	5.6	5th
Atlanta	5.8	6th
Indianapolis	6.2	7th
New Orleans	6.2	7th
San Francisco	6.3	9th
San Jose	6.3	9th
Detroit	6.5	11th
Los Angeles	6.6	12th
Columbus*	6.9	13th
Milwaukee	7.0	14th
Dallas	7.1	14th
San Antonio	7.1	16th
Denver	7.1	16th
Jacksonville	7.2	18th
Cleveland**	7.3	19th
Houston	7.3	19th
Columbus**	7.4	21st
Baltimore	7.5	22nd
Phoenix**	7.5	22nd
Kansas City, Mo.	7.7	24th
Phoenix*	7.9	25th
Pittsburgh	8.3	26th
Cleveland*	8.4	27th
El Paso	8.7	28th
Chicago	8.8	29th
Boston	9.0	30th
Philadelphia	9.4	31st
San Diego	12.8	32nd
New York	13.7	33rd

Notes: Cities with public power systems are set boldface. Cities served by both public and private power systems are followed by asterisks; (*) denotes private power systems and (**) denotes public power systems. Nashville includes Davidson County.

COST PER KWH OF 500 KWH OF ELECTRICITY IN THE 30 LARGEST U.S. CITIES JAN. 1, 1983



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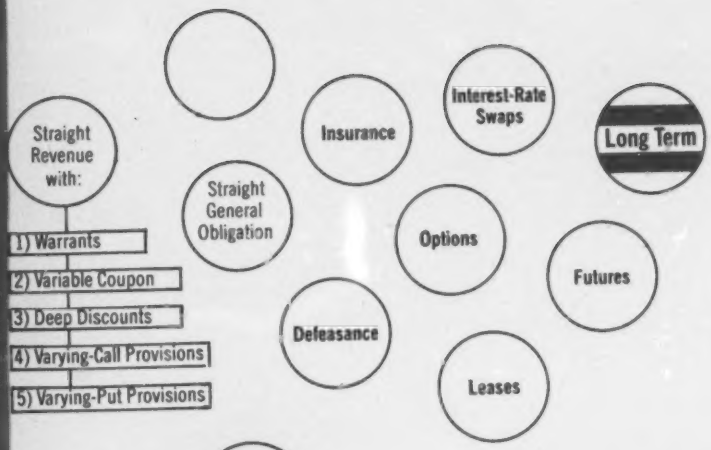
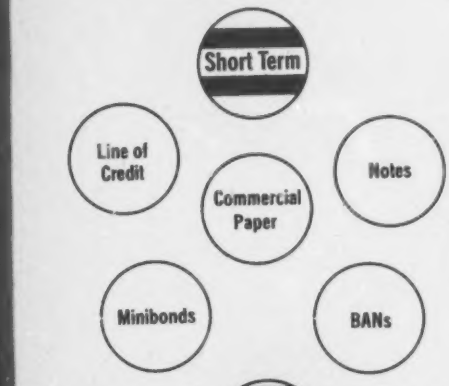




Financing Options for Public Electric Systems

by C.M. PERKINS

THE PAST FEW YEARS have been difficult for financing any enterprise, with interest rates fluctuating sharply and the economy lacking consistent direction. This has been particularly true for many electric utilities, whose continuing capital requirements are difficult to postpone. The situation has been compounded by double-digit inflation, growing environmental costs and the long lead times involved in building generation plants.

Private utilities have a wide variety of capital sources available to them — traditional long-term domestic debt markets; preferred and common stock; debentures; retained earnings; the European bond market; private placements; commercial paper; short-term bank financing and/or private financing; use of stock dividends in lieu of cash dividends; pollution-control bonds; and special tax benefits.

On the other hand, public utilities have traditionally been much more restricted in their sources of capital. They borrowed from the long-term, tax-exempt domestic market, through issuance of general obligation or revenue bonds; borrowed from the short-term tax-exempt market; borrowed from government sources (mainly federal); generated funds internally; or used some combination thereof.

This restriction did not matter much during periods of stable interest rates and relatively unlimited investment funds. Public utilities have traditionally been more highly leveraged than their investor-owned counterparts. But with low-cost debt, steadily rising sales and decreasing electric rates, prior to the early '70s, little concern was expressed by management, bond buyers or banks.

Butter, Guns and OPEC

The change began in the late '60s. The tax-exempt market during this period expanded, what with housing, industrial development and pollution control bonds being issued for the first time. So did needs of traditional governmental issuers — counties, cities and school districts. Expanded social programs heated inflation as yet another undeclared war in Asia put even more pressure on the market.

Investment bankers, attracted by greater need for funds, suddenly appeared at various meetings held by public agencies, such as APPA's annual conference. The Organization of Petroleum Exporting Countries (OPEC) oil embargo fanned inflation; so did the Federal Reserve System's attempts to control it through money supply. Interest

Perkins, assistant general manager/financial services and treasurer, Salt River Project, Phoenix, Ariz., is APPA treasurer.

rates fluctuated wildly. Investors were increasingly less willing to commit the necessary long-term funding as they had in the past, or willing to commit only under more onerous terms and conditions than previously prevailed.

In addition, the financial health of many agencies being financed was deteriorating because of rising costs, higher interest rates and decreasing growth rates. Clearly, to improve their situation publicly owned utilities needed to create new financing techniques.

While at first glance there did not appear to be many opportunities for creative financing, a closer look by both agencies and investment bankers revealed opportunities for taking advantage of certain segments of the market. Numerous alternatives for long-term financing evolved, and others will surely be developed.

Straight Revenue Bonds

The predominant method for raising capital is and will continue to be the so-called "plain vanilla" method of issuing long-term revenue bonds, combined with serial bonds with standard call provisions (10 years), minimum discounts, if any, and standard coverage provisions.

As the source of funds changed from predominantly institutions, such as casualty companies, to a retail market (bond funds, trusts and individuals) it became apparent that marketing devices designed to take advantage of certain segments of all markets would be advantageous. The problem was that, in many cases, state laws prohibited use of some of these devices. Thus laws had to be changed, if possible, to take advantage of the new methods.

Warrants

One of the new devices is use of warrants with long-term bonds. These have been used by corporate financing agents for years, but had not been used by tax-exempt agencies.

A warrant attached to a bond enables the bondholder to exchange the warrant for another bond of like denomination, carrying the same coupon rate of interest. The warrant must be exercised within a stated period of time, which can vary depending upon the issuer's desires.

Use of warrants will result in a lower initial interest rate to the issuer than would otherwise occur. The differential depends upon particular market conditions, issuer and length of time in which the warrant can be exercised.

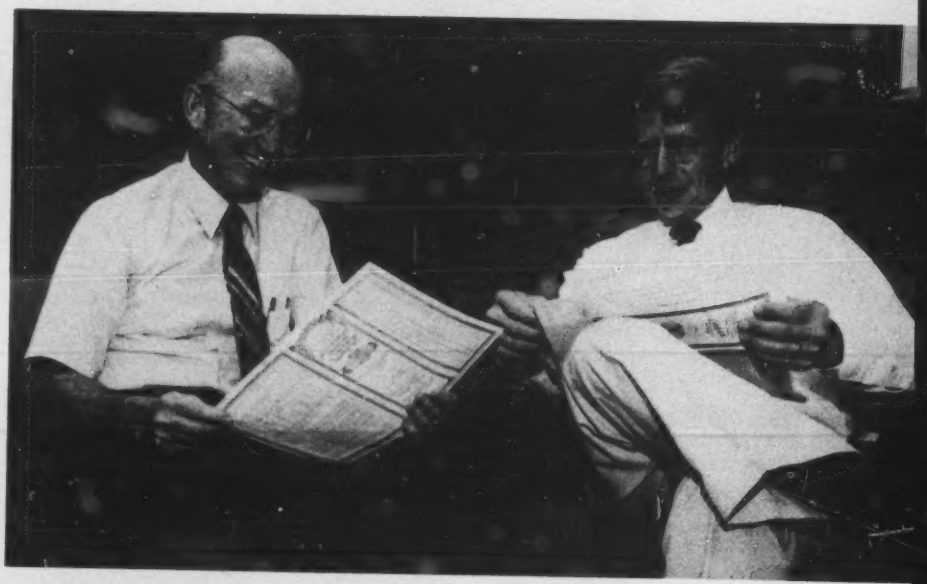
The issuer is betting on interest rates rising or at least remaining stable during the exercise period; the buyer bets on interest rates falling and thus locking in the higher rate on the additional bond. The buyer is willing to pay for this opportunity by paying a higher price for the bond (a lower interest rate). Warrants can make the bonds more attractive to certain buyers in an unstable market.

Variable Rates

Another marketing tool in an unstable market is the variable-rate bond. Bond buyers burned by portfolios declining in value as interest rates rose became more reluctant to invest in long-term bonds at a fixed rate of interest, in much the same manner as home mortgage holders did during this same period. The variable-rate bond has a coupon, tied to some acceptable interest rate index, such as Treasury bill rates, and was introduced to offset this concern and make bonds more marketable.

Usually the rate can only vary within a stated range, with a floor below which it cannot go and a ceiling or a maximum interest it can pay. Use of this device has been limited, but has met with some success and

Author C.M. Perkins, left, and Mark Bonsall, assistant treasurer of the Salt River Project, review some of their system's financial documents including, above, a $500 minibond, a "plain vanilla" revenue bond, a $5,000 bond anticipation note and (on top of others) commercial paper.



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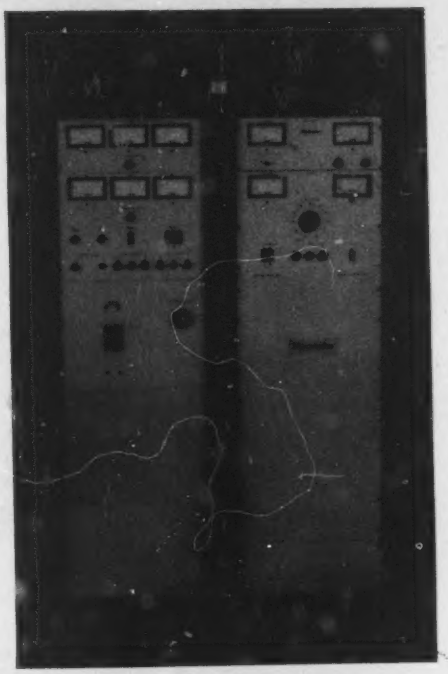
MOTOR TEST SETS



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- ►Rotation Test
- ►Air Cure Commutator
- ►Bearing Temperature Test
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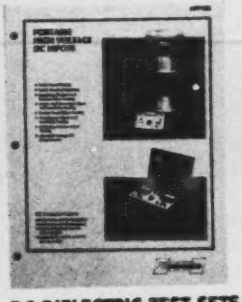
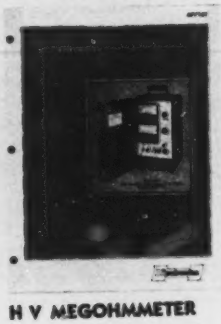
- ►Vibration and Static Test
- ►R.P.M. Check Test
- ►Open Stator Test
- ►Voltage and Current Balance Test

NOTE: Some of the below listed Testers can be incorporated into the Motor Test Sets.

AC DIELECTRIC TEST SETS



DC DIELECTRIC TEST SETS



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lowered the initial coupon rate as it removes some risk to the buyer. It adds to the risk of the seller and can cause difficulties if certain debt service coverage tests must be met, since debt service varies with interest rates.

Deep Discount

Original-issue, deep-discounted bonds are another method used to appeal to certain specific market segments. For tax and related purposes, some buyers can use deep-discounted, original-issue bonds to their advantage and are willing to give up a few basis points* of interest to obtain these instruments. Deep discounting means a bond carrying a coupon of some 300 to 400 basis points less than market interest is purchased at a price some 20 to 30 percent less than face value.

For example, a bond that would ordinarily carry a 10 percent coupon and sell at par value may be offered with a coupon of 6 percent to 7 percent, but sell at, say, 65 percent to 75 percent of par value. It allows buyers to realize an immediate capital gain rather than pure interest cost for this privilege. If there are such buyers in the market it may just allow an easy sale at the same price, depending on the market and the issuer.

The logical extreme of a deep discount bond is the zero-coupon bond, wherein the investor's return is entirely embodied in the discount from face value upon maturity.

Calls and Puts

Call features included in the sale of long-term bonds can be important in unstable markets. A standard call feature prohibits redemption, at the option of the issuer, for 10 years, with a penalty or premium of a certain percentage above par being paid for the privilege.

If the issuer feels interest rates may go down long enough for defeasance (refinancing), it may be to the issuer's advantage to reduce the call period to less than 10 years. Reducing the call period may cost the issuer

**One basis point equals one/hundredth of one percent.*

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initially somewhere between 25 to 100 basis points in initial interest cost, and may reduce the population of potential investors in the given bond issue.

But if interest rates go down sufficiently savings can more than offset initial costs by many millions of dollars. Again, it's a judgment call by the issuer as to whether the added cost is worth the risk of obtaining the potential gain.

The premium for early call can also help sell bonds in difficult markets. The standard premium for early redemption is 2 percent to 3 percent. Buyers of course seek protection in higher premiums and longer call periods. The issuer's success is contingent on the credit rating of the issuer — and the market when the bonds sell.

The flip side of the call is the put. It gives the investor the right to put the bond back to the issuer for early redemption at an agreed price and time. For the same reasons conservative call features can be attractive to bond *issuers;* liberal put features can be attractive to *investors.*

Put features have been used periodically in various bond issues coming to market with some success — that is, with lower interest cost to the issuer. In exchange, of course, the issuer assumes the risk of the put being exercised. The potential of the put being exercised can conflict with whatever coverage covenants may exist in the issuer's enabling debt resolution(s).

Defeasance

Another device available to issuers in turbulent markets is defeasance, the issuing of refunding bonds at a lower interest rate to refund those issued earlier at a higher interest rate. By carefully structuring the call feature and premium for early call, and being ready with an official statement so as to take advantage of any window in the market, the issuer can reduce debt service substantially through defeasance.

This concept is often hard for management to understand. The actual mechanics are not simple, since more debt is issued than is retired. However, this type defeasance reduces the combination of future interest and principal repayment, which is the aim of the chief financial officer.

Defeasances have also been used to eliminate completely any category of debt the issuer may feel is imposing cumbersome or difficult conditions due to the security provisions backing that type of debt.

Shelf Registration

Shelf registration — simply having an official statement ready to go on a moment's notice — can expedite financing. Readiness is valuable in a volatile market inasmuch as attractive financing opportunities may be short-lived.

Some agencies have even negotiated the sale of an issue during these brief market periods with a draft preliminary official statement subject to issuance of a final document satisfactory to the investment bankers. This type of flexibility is not easy to achieve, but necessary to take advantage of the market in volatile times.

Insurance

Insurance can achieve savings simply by making debt issues salable during tight money markets. The principle involved is just as it sounds — the issuer buys insurance which insures principal and interest will be paid the buyer in the event of problems experienced by the issuer.

The agency must balance the cost of insurance against the increased price for its bonds. Quite often this technique is used by agencies with lower credit ratings to gain market access.

Swaps, Options and Futures

Several other relatively new techniques can be useful in certain situations.

Interest rate swaps exchange short-term fluctuating rate obligations for intermediate-term fixed-rate obligations between two parties to create, for example, an intermediate-term opportunity for public agencies. Intermediate-term debt is not widely used by public agencies, due largely to debt covenant restrictions and rating concerns. Swaps can combine taxable and non-taxable entities for mutual benefits.

For example, the taxable entity may swap its intermediate-term interest rate, less a certain number of basis points, for the tax-exempt entity's commercial-paper rate plus a number of basis points for a fixed term. The swap allows the tax-exempt agency to, in effect, access the intermediate-term market at a relatively attractive rate and allows the taxable entity access to the short-term market at rates less than it would pay for its own commercial paper or other short-term borrowings.

Options and futures have long been used in other fields to hedge against future volatility in prices, particularly for farm products. In essence, the issuer locks in certain rates by purchase of an option or future.

If rates improve or stay steady the issuer is out the cost of the option or future. If rates go up the interest savings more than offset the cost of the future or option.

These are both relatively new and untried

Columbia (Mo.) Water and Light Using Revenue Anticipation Notes

COLUMBIA (MO.) WATER AND LIGHT used its own staff to develop another financing alternative — revenue anticipation notes — to raise $5.6 million to purchase a share in the Nearman coal-fired Creek built by Kansas City (Kan.) Board of Public Utilities. Richard E. Malon, director of the Columbia system, describes its innovative financing this way:

"Our state law precludes an individual municipality from owning any facilities outside of its county. We also have constitutional requirements for having referendums on bond issues. In this particular case we have managed to purchase a piece of a power plant in Kansas, borrow the money to do it with without having to go through a referendum, and are actually going to end up making a dollar on the deal.

"What we have done is enter into a contract with Kansas City, Kan., that will allow us to make payments on the 'easy monthly payment' plan. The contract is really a unit-participation contract for the life of the unit, gives us the same rights and control as though we own the unit, but lets us pay for it on the monthly basis as though we were purchasing power.

"The Kansas City Board of Public Utilities needed some cash in advance so we agreed to prepay three years' worth of capacity charges. They are going to give us a monthly credit on our bill, so at the end of the three years we will get our money back. We floated the revenue anticipation notes, and we managed to sell them in May at a flat 6 percent interest rate.

"We are now going to start up a separate fund that will be a sort of sinking fund into which we will deposit an amount each month equal to what our capacity charge would be. Our finance director figures he can make upwards of 9 percent investing these funds, so at the end of the three-year period we will not only have paid back our revenue anticipation notes, but hopefully made a tidy little sum in the process.

"We are actually going to roll the notes over at nine-month intervals so they cannot be considered long-term debt. We will actually reduce the outstanding revenue anticipation notes by one-fourth of the face amount each time we roll them over."

Columbia's experience, said Malon, "shows that utilities our size really don't need to purchase expensive financial advisory services. . . . As we keep developing our system, we are getting more and more sophisticated and are basically ending up with the same kinds of arrangements that any large investor-owned utility might have. I think it also shows what a system our size (22, 221 meters) can accomplish." VOR

in the tax-exempt field. They represent alternatives available to reduce the risk of fluctuating interest rates but need more technical and market development before being used extensively.

Leasing

Another alternative is use of leases. The financial community offers creative leasing arrangements for both long-term and intermediate requirements. Most often these arrangements combine tax-exempt and taxable entities. The lessor passes some tax benefits it receives to the lessee in the form of lower lease rates.

Leases can have the advantage of removing the asset and liability from utility balance sheets as well as allowing a lower effective interest cost. However, there are disadvantages in not having complete control over the useful life of the lease-financed asset.

Often buyers of utility debt will view the transaction as a subterfuge to hide the utility's true financial condition. If used with discretion for certain situations or markets, leases can enhance financial viability.

In addition to the dozen long-term and intermediate term alternatives described above, several short-term financing methods offer possibilities:

Line of Credit

Until a few years ago, the principal method available to public agencies for financing short-term debt was a line of credit with commercial banks. Usually, if the agency had a decent credit rating, the line could be obtained for 60 percent to 70 percent of the prime rate. However, not all banks can use tax-exempt income, and the price and availability of bank credit to publicly owned agencies can fluctuate widely.

In essence, line of credit allows the agency to draw funds, up to a stated amount, for short-term needs ordinarily repaid within a year.

Tax-Exempt Commercial Paper

Issuance of tax-exempt commercial paper (TECP) has grown exponentially from near zero to many billions of dollars in the past few years. Backed by a line of credit, public agencies issue commercial paper (unsecured promissory notes) with maturities from one to 270 days, normally at a rate of less than 50 percent of prime after all issuing costs have been added.

The paper usually averages approximately 30 days in maturity, and demand for this type of paper is growing dramatically. For the issuer's paper to obtain the best interest rate it is critical to achieve a high credit rating from rating agencies; proper preparation in this regard is a must.

TECP can be a very attractive alternative means of financing working capital and interim construction expenditures for good public credits. Express authority to sell this type of debt is most efficient. However some TECP programs use existing bonding or note authority combined with variable rate and put features to, in effect, create tax-exempt commercial paper.

Editor's note: Eight public power systems maintained tax-exempt commercial paper financing programs at the end of last year, according to Lehman Brothers Kuhn Loeb. Total authorization amounted to $835 million, as contrasted with two public power programs with TECP financing totaling $275 million in 1980.

The public power systems with TECP and authorized amount in each of the eight systems last year were:

Jacksonville (Fla.) Electric Authority	$150,000,000
Los Angeles (Cal.) Department of Water and Power	90,000,000
Memphis (Tenn.) Light, Gas and Water Division	25,000,000
Municipal Electric Authority of Georgia	100,000,000
Orlando (Fla.) Utilities Commission	50,000,000
Platte River Power Authority, Fort Collins, Colo.	120,000,000
Sacramento (Cal.) Municipal Utility District	50,000,000
Salt River Project, Phoenix, Ariz.	250,000,000

Bond Anticipation Notes

A third method available for short-term financing is issuance of bond anticipation notes (BANS). Typically these are one- to three-year notes backed by an agency promise to issue long-term bonds for their redemption at maturity. To gain market acceptance the agency must have authority to issue the redeeming bonds and the financial strength for this procedure.

BANS help particularly if the issuer anticipates lower interest rates in the future, as they allow the agency to use the yield curve to advantage by keeping current interest costs below what they would otherwise be if long-term debt were the only alternative.

Regular, unsecured notes can also be used without the requirement or authority for taking them out at maturity with long-term bonds if the issuer's credit rating is high, and state laws allow.

Caution should be exercised in issuing BANS or BAN-type instruments; the principal repayment thereof poses a sizable near-term cash obligation on the issuer. That obligation can affect an issuer's ability to honor other obligations. A potential BANS issuer should ascertain rating agency policy on BANS and discuss use of BANS with its financial adviser, if it employs one.

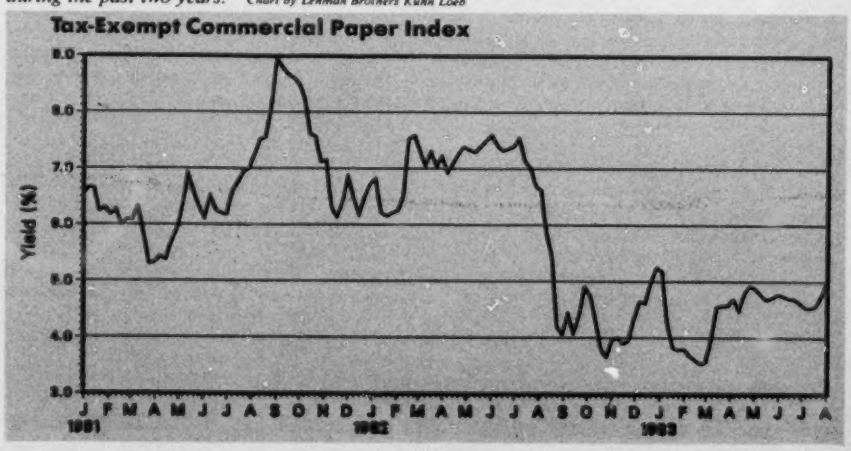
Minibonds

Another short- to medium-term credit device used by a few public agencies is the minibond. Minibonds have been issued with maturities ranging up to 10 years, and are typically issued in certificates with face values of $500, rather than the usual $5,000. This brings them within reach of small investors and system employees, thus broadening the market.

In times of high interest rates, they are particularly attractive to this segment of the buying public. While they may not be a means for raising large amounts of capital ($100 million or more), they have been successful in raising as much as $10 million to $15 million for issuers.

An advantage of minibonds is that ratepayers can buy them, and thus acquire a much higher interest in the utility's financial integrity. A utility with a good credit rating

Several public power systems have been attracted to tax-exempt commercial paper because of its relatively low effective borrowing costs. Yield has ranged from 9 percent to less than 4 percent during the past two years. Chart by Lehman Brothers Kuhn Loeb



and customer acceptance can use this method of financing successfully.

Cash Management

Creative financing also includes the latest techniques in managing cash receipts and disbursements of the agency. Long overlooked by many agencies, proper management of this asset is a must. The computer has greatly enhanced management of this asset, and in periods of volatile interest rates earnings from proper cash management can add substantially to the bottom line.

A cash budget should be developed to maximize earnings through proper timing of disbursements and maturity schedules.

Electronic banking has virtually eliminated the float enjoyed by banks in the past. Up-to-date bank balances are available instantly each day. Same-day billing speeds up payments, and same-day deposits assure the money is working for the utility.

In summary, market volatility has led to development of many innovative practices by both financial officers of publicly owned utilities and the banking community serving them. Financing major projects and raising huge amounts of capital in the past few years have not been easy. It appears these market conditions will stay with us awhile. There are still new methods to be developed to help public power systems' financial managers cope with uncertainties.

Outlook and Insights

continued from page 8

sify energy supply, and thus limits the nation's dependence upon oil; and nuclear power provides insurance against cost increases in world-traded coal.

In addition to light-water reactors, Great Britain is also pursuing fast breeders, although he noted projected increases in uranium price would not justify such reactors economically until the first quarter of the next century.

West Germany likewise gave an optimistic assessment of nuclear power. Karl Beckhurts said the country has 10,000 MW of nuclear power capacity — about 17 percent of its total — but 14,000 MW were under construction, and nuclear power would soon supply about one-third of that nation's generating capacity.

West Germany is building nuclear power plants under a simplified licensing procedure which requires three permits, compared with 10 formerly required, he said. Consequently, construction time is now six to seven years.

Beckhurts was optimistic about the price of nuclear power. He said under baseload conditions nuclear power is about 40 percent less expensive than coal. He expects coal-fired plants to become more costly because of installation of flue-gas desulfurization.

Although he expressed interest in fast breeders, Beckhurts said they will not be commercially feasible for perhaps 50 years, and he believes they represent a good project for international development. (Another speaker pointed out that price of uranium was only one aspect to consider in judging the economic need for the breeder. He said that a three-fold increase in the real price of uranium would result in only a 20 percent increase in nuclear power's cost.)

Nuclear Prospects Dim In U.S.

In contrast to the generally optimistic view of nuclear power in Europe, a leading spokesman for the United States held a dim prospect for the immediate future of nuclear power in this country.

Gordon Hurlbert, formerly of Westinghouse and chairman of the U.S. National Committee of the World Energy Conference, said there is little likelihood that a U.S. utility will order another nuclear plant during the remainder of this decade. He added that it is his personal opinion that perhaps an additional six of the 50 plants now under construction will be cancelled.

"At a minimum, what is required for new orders for nuclear plants in the United States is an elimination of uncertainty — an assurance that once a construction permit is granted the plant can be built and licensed to operate without further changes — that

$257,000,000

Southern Minnesota Municipal Power Agency

Power Supply System Revenue Bonds, Series 1983 A & B

The undersigned acted as financial advisor in these transactions.

Smith Barney, Harris Upham & Co.
Incorporated

JANUARY-FEBRUARY 1984

publicpower

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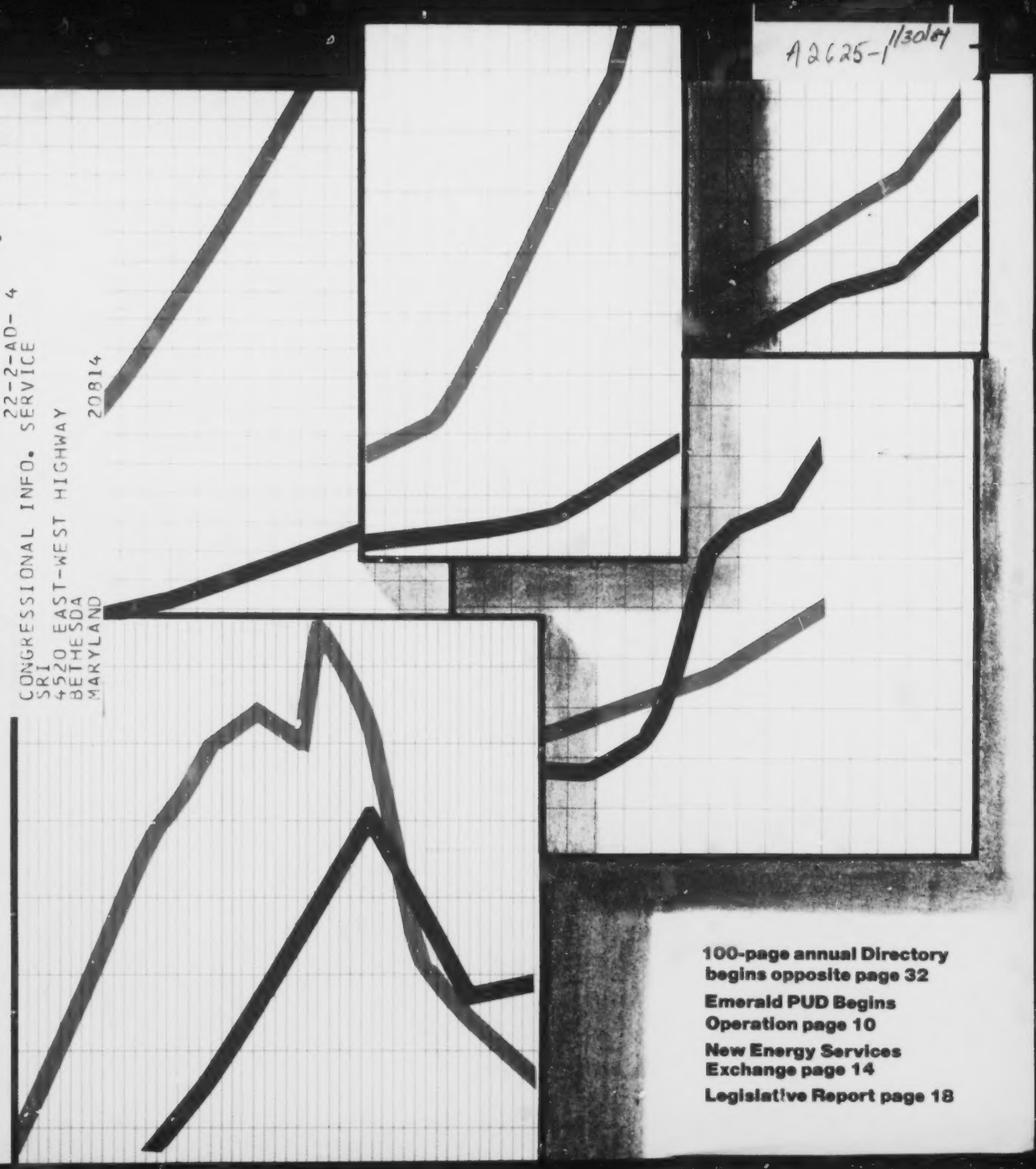

100-page annual Directory begins opposite page 32

Emerald PUD Begins Operation page 10

New Energy Services Exchange page 14

Legislative Report page 18

public power

JANUARY-FEBRUARY 1984
VOLUME 42 NUMBER 1

APPA's expanded 100-page annual Directory, including charts depicting historical relationships among public, private, cooperative and federal electric power systems, begins opposite page 32.

6 **OUTLOOK AND INSIGHTS by Alex Radin**
APPA's new book concludes public power will be judged by what it *does* in the future, not what it *was* in the past.

10 **SWITCHOVER AT LAST FOR EMERALD PUD by Enid Smith**
A 13-year struggle by Oregonians led to commencement of operations in November by the nation's newest public power system, serving almost 17,000 customers.

14 **NEW ENERGY SERVICES EXCHANGE PROVIDES DIVERSE ASSISTANCE by Karen Anderson**
Technical advisers from innovative public power systems and small on-site seminars feature APPA's latest program for information transfer.

18 **HALFWAY THROUGH THE 98TH CONGRESS by Alan Richardson**
The diary of APPA's legislative director reveals the intricacies of the Association's major legislative efforts.

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34 **WARM-WATER WELL CUTS POWER COSTS by Jerry Painter**
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38 **SAN ANTONIO MAPS ITS ENERGY FUTURE by Richard S. Howe**
Local and outside technical experts, with valuable assistance from citizen groups, provided the City Council's requested second opinion on utility planning.

42 **LOCAL SYSTEMS BUDGET $5.39 BILLION FOR 1984 PLANT WORK by Jeannie Kilmer**
Transmission and distribution expenditures are projected to rise 16.1 percent; estimated generation expenditures decrease 11.9 percent.

59 **INSIDE APPA by Priscilla Knight**
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64 **THE OTHER SIDE by Vic Reinemer**
"We in public power work principally for local governments or their agents. Wear the municipal badge proudly. Public power's distinctions from private power are substantial and impressive."

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This Directory is part of PUBLIC POWER, *the bimonthly publication of the American Public Power Association, 2301 M St. N.W., Washington, D.C. 20037; 202/775-8300. Copies of the directory are available, from the* APPA *publications department, for $20 to* APPA *members, or $40 to nonmembers. Write or call the* PUBLIC POWER *circulation department to subscribe to the magazine ($25 a year; $35 a year after March 1, 1984).*

U.S. ELECTRIC UTILITY STATISTICS

Additions and corrections to be included in the next directory should be sent to PUBLIC POWER Directory, 2301 M St. N.W., Washington, D.C. 20037.

Local public system statistics are from the American Public Power Association. Private company figures are from the Energy Information Administration. Rural electric data are from the Rural Electrification Administration. Federal power statistics are compiled from annual reports of the federal power marketing agencies and data reported to APPA.

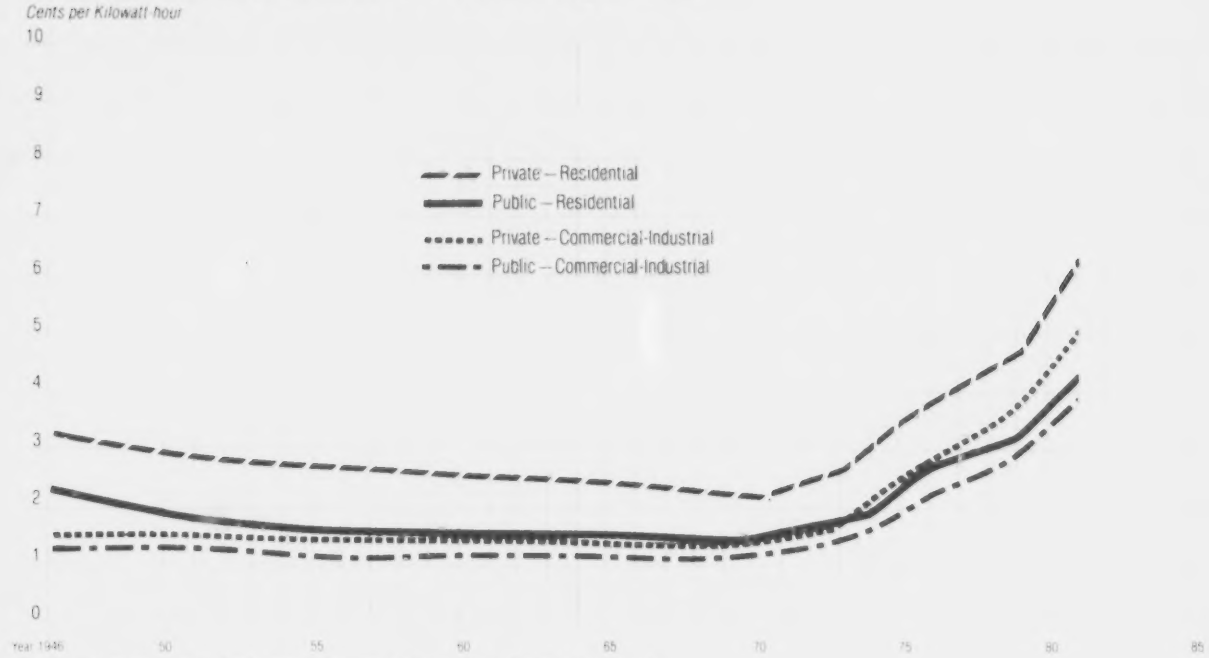
NUMBER OF SYSTEMS

Private power companies	219
Local publicly owned systems, including municipals, public utility districts and state and county systems	2,195
Publicly owned joint action agencies	54
Rural electrics (including 870 distribution co-ops) and 59 generation and transmission co-ops	929
Federal power agencies	12
TOTAL	3,409

		1982	1982 %	1981	1981 %
NUMBER OF CUSTOMERS	Local public systems	12,796,451	13.4	12,718,572	13.5
	Private	72,783,000	76.1	71,885,000	76.1
	REA borrowers	10,096,448	10.6	9,844,319	10.4
	Federal	13,849	.01	14,115	.01
	TOTAL	95,689,748	100	94,462,006	100
KWH SALES *(to ultimate customers, in millions of kWh)*	Local public systems	308,795	14.6	320,432	14.7
	Private	1,597,951	75.4	1,634,217	75.1
	REA borrowers	151,733	7.2	148,880	6.8
	Federal	60,307	2.8	71,358	3.3
	TOTAL	2,118,786	100	2,174,887	100
ELECTRIC OPERATING REVENUES *(in thousands of dollars)*	Local public systems	$ 16,747,068	11.4	$ 14,378,030	10.8
	Private	109,960,535	75.1	102,301,091	76.6
	REA borrowers	13,982,308	9.5	11,795,376	8.8
	Federal	5,824,014	4.0	5,015,287	3.8
	TOTAL	$146,513,925	100	133,489,784	100
NET ELECTRIC PLANT INVESTMENT *(in thousands of dollars, does not include nuclear fuel)*	Local public systems	$ 41,833,105	12.0	$ 38,489,719	12.1
	Private	250,223,870	71.5	227,276,647	71.3
	REA borrowers	33,796,354	9.7	29,491,653	9.3
	Federal	23,958,733	6.8	23,477,491	7.4
	TOTAL	$349,812,062	100	$318,735,510	100
INSTALLED CAPACITY *(in thousands of kW)*	Local public systems	68,372	10.5	69,418	10.9
	Private	485,488	74.9	480,325*	75.4
	REA borrowers	23,151	3.6	20,589	3.2
	Federal	71,155	11.0	66,374	10.4
	TOTAL	648,166	100	636,706	100
KWH GENERATION *(in millions of kWh)*	Local public systems	221,383	9.8	207,655*	9.0
	Private	1,711,576	75.5	1,785,500	77.1
	REA borrowers	81,568	3.6	77,231	3.3
	Federal	252,603	11.1	245,696	10.6
	TOTAL	2,267,330	100	2,316,082	100

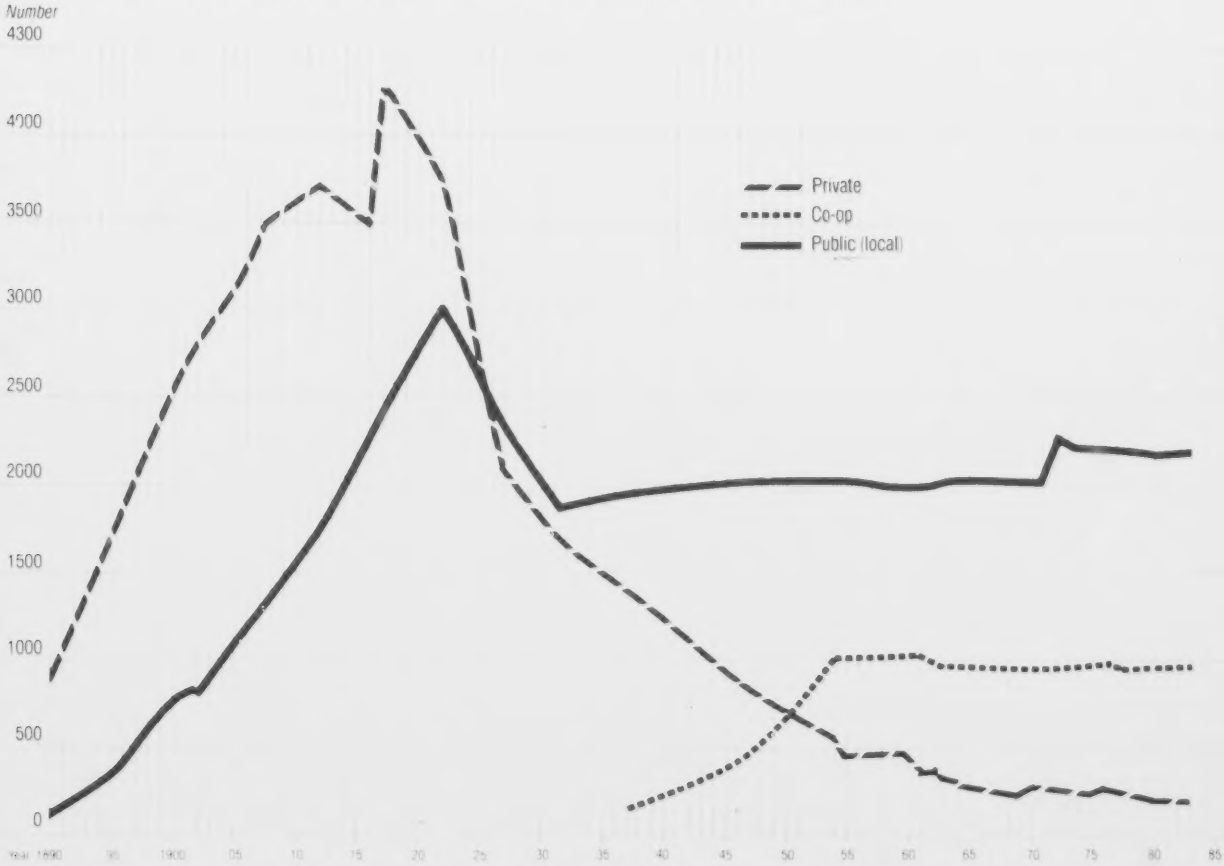
*revised

1. Electricity's Average Cost per kWh 1946-1981
Public (local) and Private Power Systems



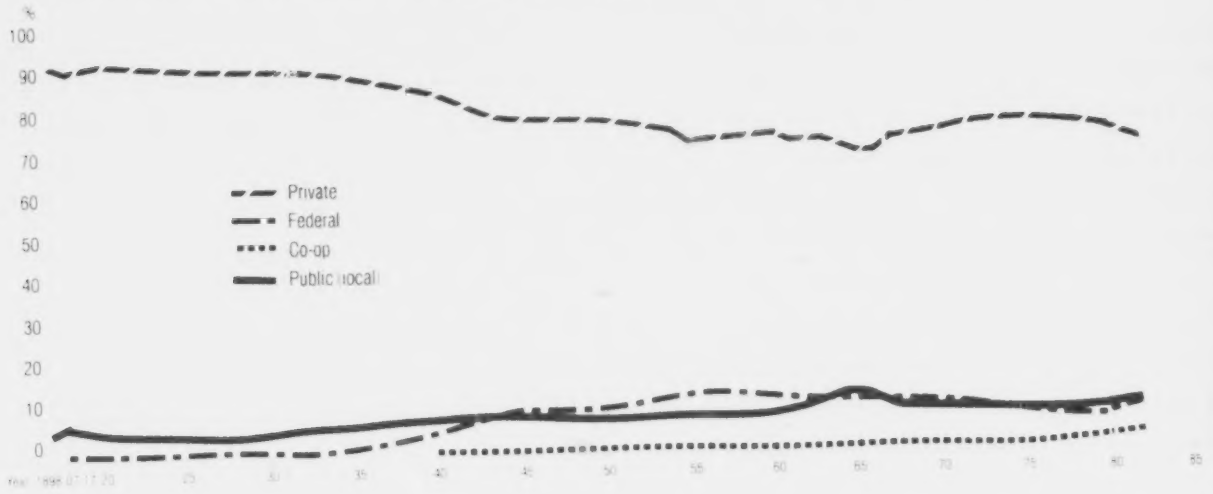
Sources: Energy Information Administration, 1976-1982; Federal Power Commission, 1946-1975.

2. Number of Electric Systems, by Ownership 1890-1983

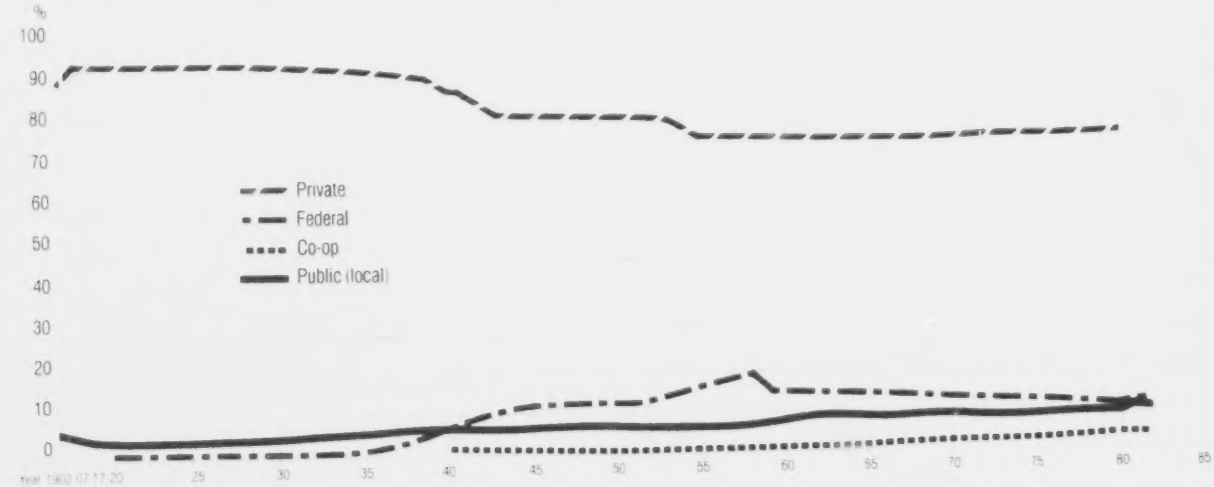


Note: Public systems include municipals, public utility districts and state power authorities, and exclude joint-action agencies and federal agencies.

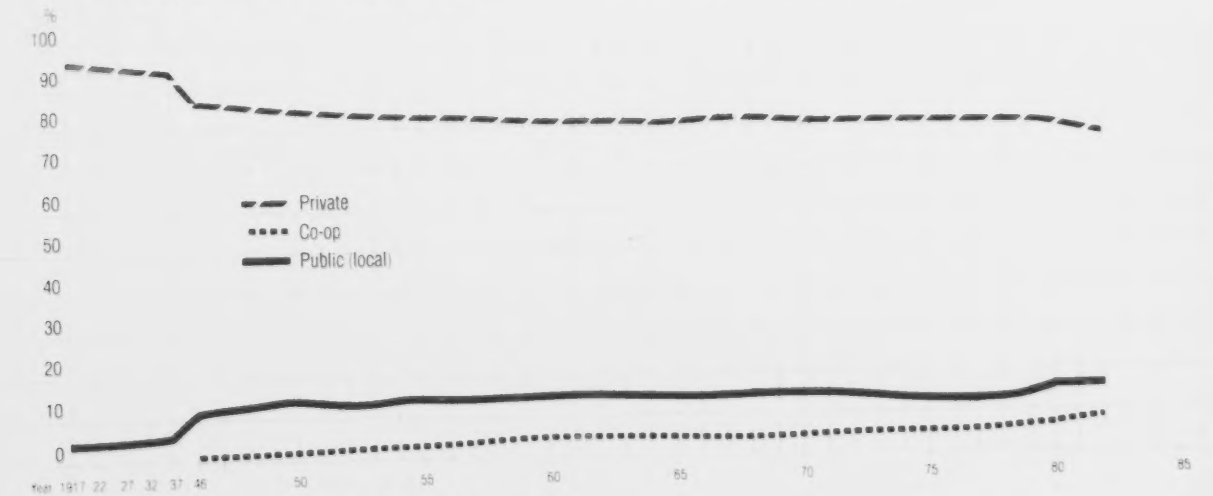
3. Installed Utility Generating Capacity, by Ownership 1898-1982



4. Kilowatt-hours Generated by Utilities, by Ownership 1902-1982

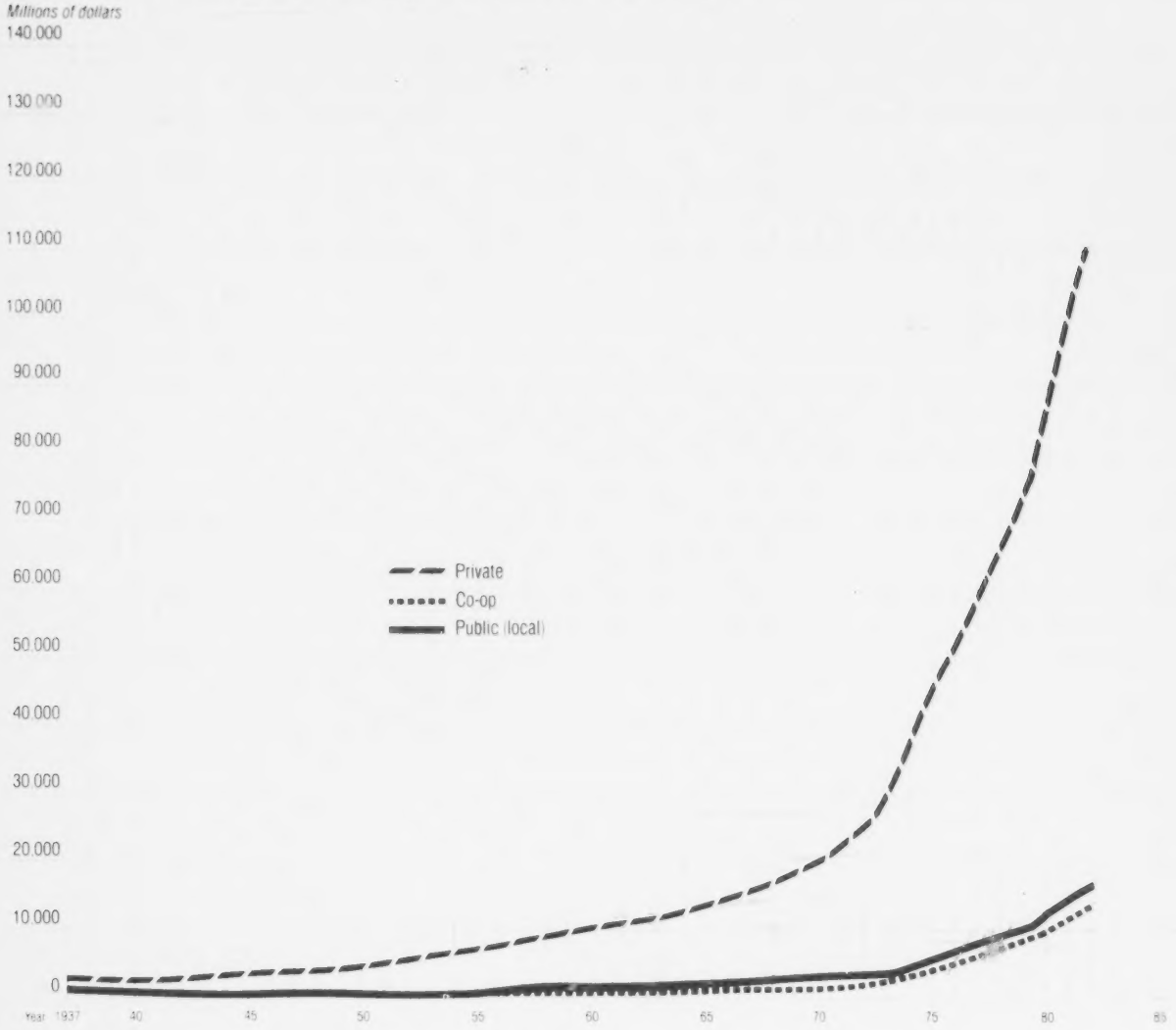


5. Kilowatt-hour Sales to Ultimate Customers 1917-1982

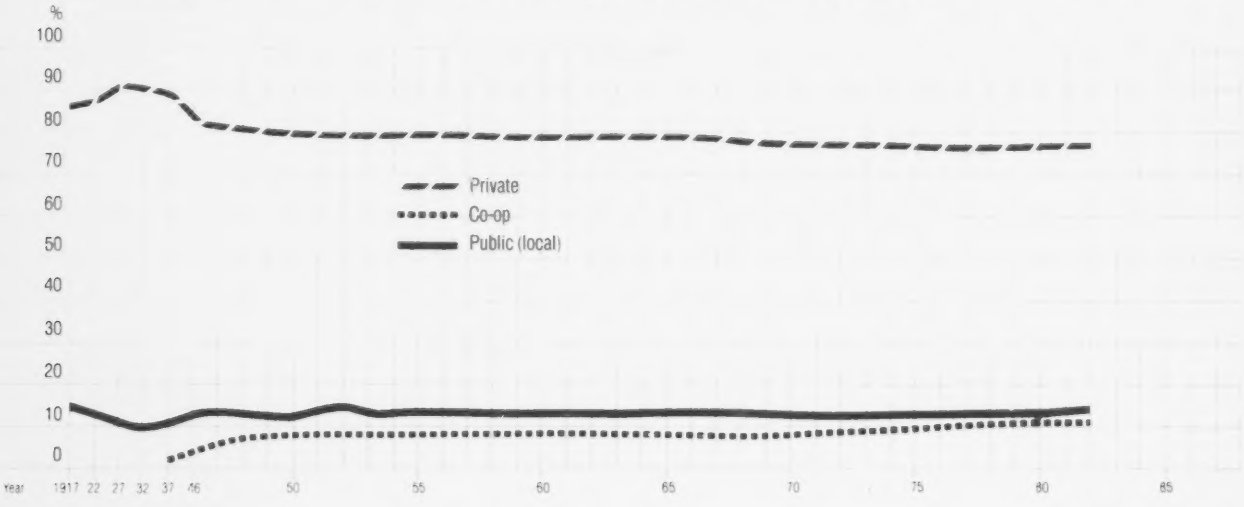


Notes: Sales for resale are included; sales from federal projects are excluded.

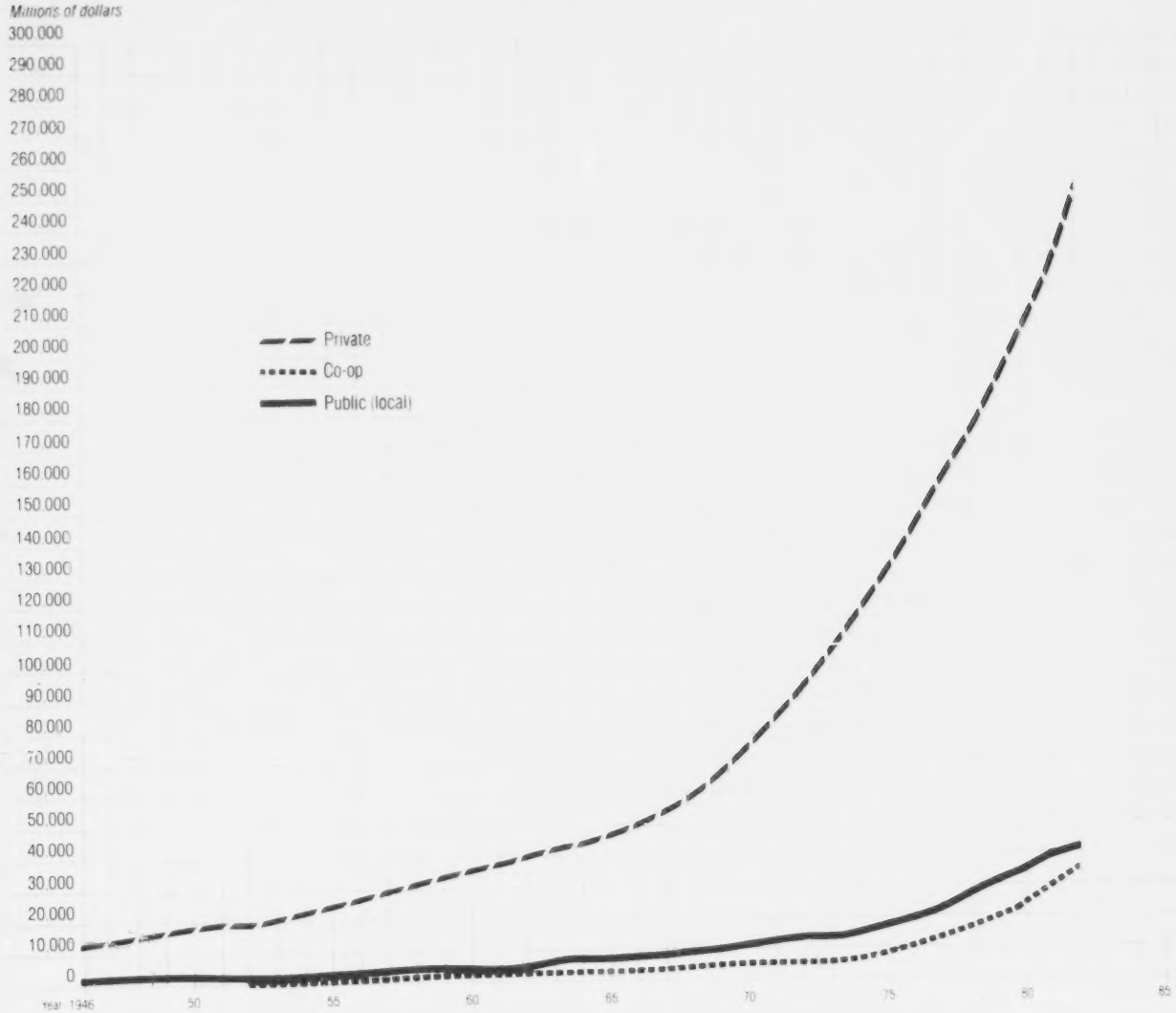
6. Electric Utility Operating Revenues 1937-1982



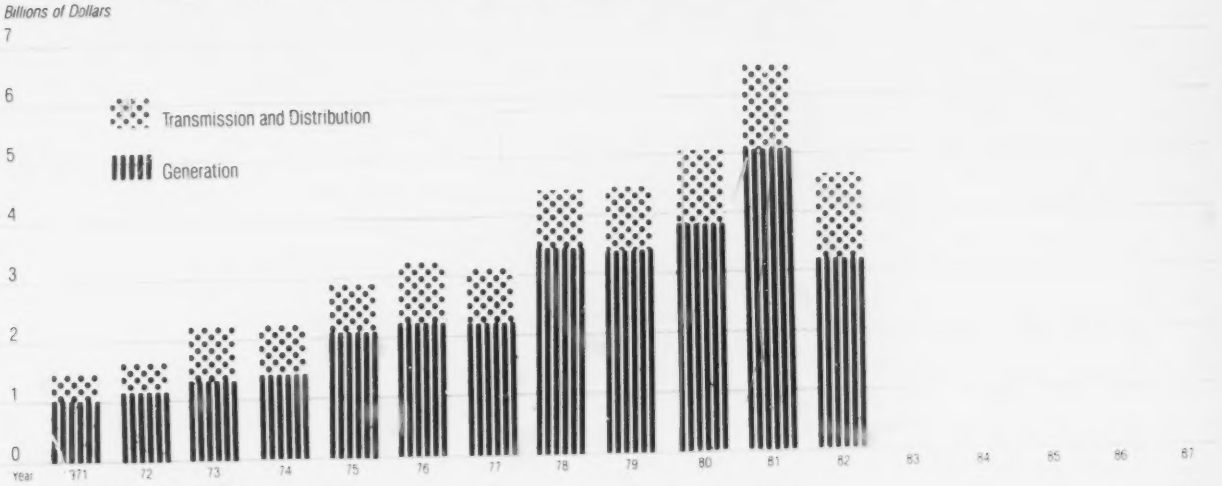
7. Number of Ultimate Electric Utility Customers 1917-1982



8. Net Electric Utility Plant 1946-1982

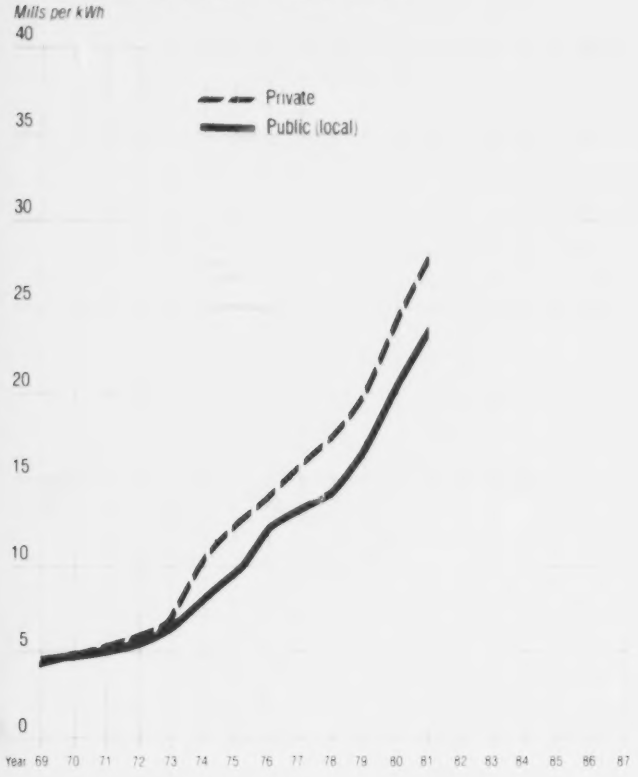


9. Annual Expenditures by Local Public Power Systems for Generation, Transmission and Distribution 1971-1982

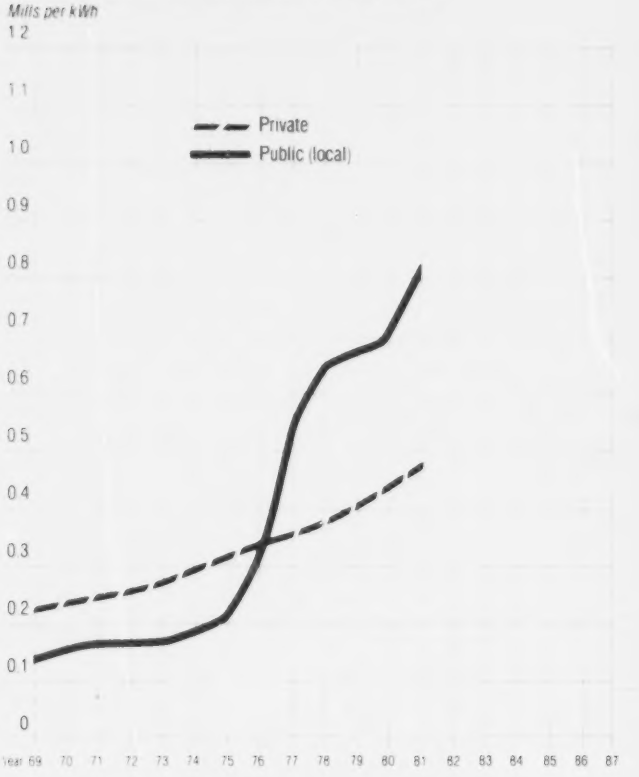


Source Annual surveys by APPA

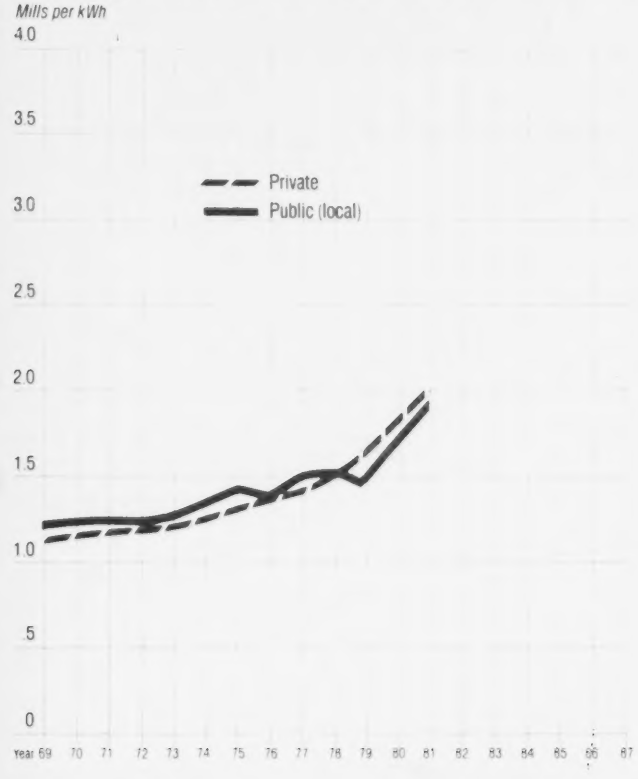
10. Cost of Production per kWh sold, public and private utilities 1969-1981



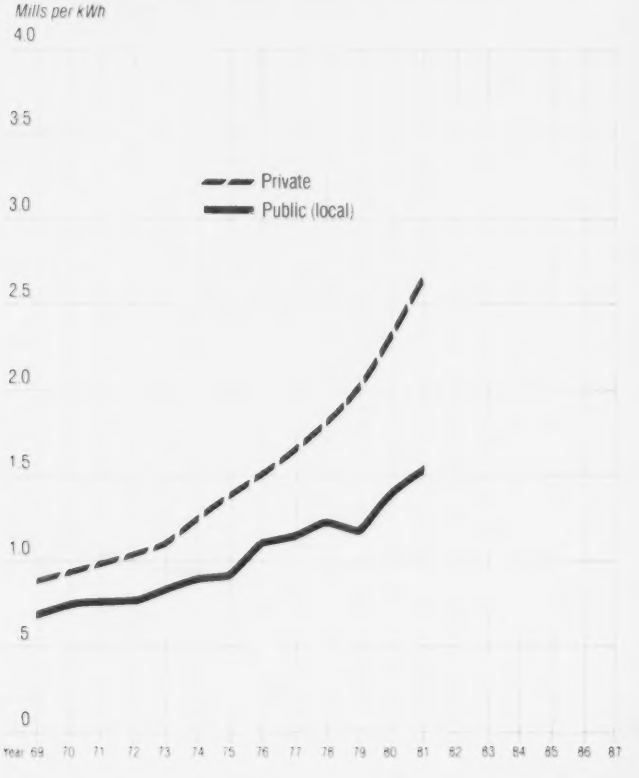
11. Cost of Transmission per kWh sold, public and private utilities 1969-1981



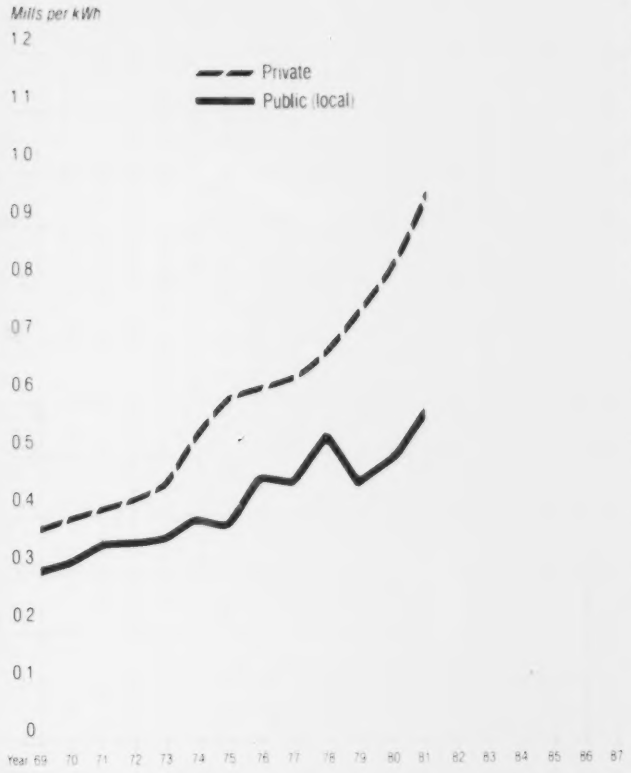
12. Distribution Expenses per kWh sold, public and private utilities 1969-1981



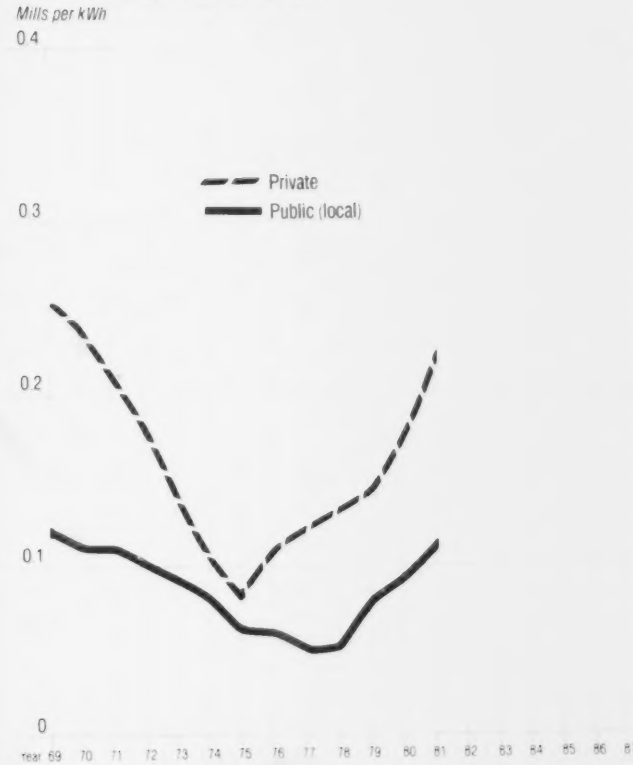
13. Administrative and General Expenses per kWh sold, public and private utilities 1969-1981



14. Accounting and Collections Expenses per kWh, Public and Private Utilities 1969-1981



15. Customer Service, Information and Sales Expenses per kWh, Public and Private Utilities 1969-1981



About the directory . . .

PUBLIC POWER's Directory of Local Publicly Owned Electric Utilities includes more than 2,100 listings of local publicly owned electric systems in the United States, organizations of these utilities, federal power agencies, major Canadian electric utilities, a directory of publicly owned cable communications systems and, for the first time, identity of APPA members and associate members, and charts comparing different types of electric power systems.

Included in the directory are: municipal electric systems; public utility districts; people's utility districts, public power districts; other types of state and county electric systems; organizations which include local publicly owned electric systems; and federal power agencies. *Not included* in this directory are: privately owned electric power companies and — except for APPA members — rural electric cooperatives.

Listings cover the following information where available: name of utility; address, including mailing zip code; telephone number, including area code and local number; chief executive officer, usually superintendent (supt.) or manager (mgr.); number of meters (met.) served; generation (gen.) by type, including steam, gas turbine, internal combustion engine (eng.) and hydroelectric (hydro) in kilowatts of capacity (kW), usually nameplate ratings, and total generation for the latest available year in kilowatt-hours (kWh); power purchased (pur.) at wholesale or sold for latest full year, either calendar or fiscal, in kilowatt-hours; annual electric revenues (rev.) for the latest available year; and year system was established. A small three (3) at the end of an entry means the principal data therein was obtained in 1983. A small two (2) means the principal data was obtained in 1982 etc. An asterisk (*) denotes APPA membership.

Local publicly owned electric utilities are listed alphabetically by states. Municipal systems are listed by the name of the city. Other types of local public power systems — public utility districts, public power districts and other state- and county-owned electric systems — are listed alphabetically by the name of the utility. Public utility districts are usually shown by the name of the county served.

The directory lists local publicly owned electric utilities in 49 states, the Canal Zone, Puerto Rico, Virgin Islands, Guam and American Samoa. There are no local public systems in Hawaii.

Nebraska, the only state in which all electric utility service is consumer-owned — provided by either publicly owned or cooperative systems — leads the nation with 158 local publicly owned utilities. In addition 217 other communities in Nebraska own municipal electric systems which are operated under lease agreements by Nebraska Public Power District and 22 other communities lease their municipal electric utilities to Loup Power District, so the state has a total of 397 local publicly owned electric utilities.

Other leading states in numbers of publicly owned systems are: Iowa, 140; Kan., 127; Minn., 125; Wis., 84; Ohio, 83; Mo., 82; Texas, 75; N.C., 72; Ind., 72; Okla., 69; and Tenn., 63. Other state totals are: Ala., 36; Alaska, 19; Ariz., 18; Ark., 15; Cal., 38; Colo., 30; Conn., 6; Del., 9; Fla., 33; Ga., 52; Idaho, 13; Ill., 41; Ky., 30; La., 21; Maine, 6; Md., 5; Mass., 40; Mich., 41; Miss., 23; Mont., 1; Nev., 8; N.H., 5; N.J., 9; N.M., 8; N.Y., 50; N.D., 11; Ore., 17; Pa., 34; R.I., 1; S.C., 22; S.D., 35; Utah, 36; Vt., 15; Va., 17; Wash., 42; W.Va., 2; and Wyo., 12.

The table shows that four states have more than 100 local publicly owned electric utilities, and 14 states have 50 or more local publicly owned power systems.

This is PUBLIC POWER's twenty-third annual directory, and a number of changes from the previous directories, including the numbers of systems shown for several states and the national total, reflect corrections from the earlier listings as well as changes during the past year.

Although PUBLIC POWER is responsible for the directory, the editors acknowledge with gratitude the many sources of information which have made it possible to compile the most accurate listing of local publicly owned electric utilities ever published.

These sources include hundreds of local publicly owned utilities which submitted information to PUBLIC POWER on a survey form; records and files of the American Public Power Association, the national service organization of the local publicly owned electric utilities; officials of regional and state associations, joint-action agencies and the federal government; and many individual officials of public power systems.

20 LARGEST STATE & LOCAL PUBLICLY OWNED ELECTRIC SYSTEMS

ELECTRIC CUSTOMERS SERVED—1982

1.	Los Angeles (Cal.) Department of Water and Power	1,226,911
2.	Puerto Rico Electric Power Authority*	1,015,281
3.	San Antonio (Texas) City Public Service Board	369,631
4.	Sacramento (Cal.) Municipal Utility District	347,835
5.	Salt River Project, Phoenix, Ariz.	341,411
6.	Memphis (Tenn.) Light, Gas and Water Division	309,720
7.	Seattle (Wash.) City Light	293,055
8.	Jacksonville (Fla.) Electric Authority*	232,092
9.	Nashville (Tenn.) Electric Service*	226,461
10.	Omaha (Neb.) Public Power District	216,556
11.	Austin (Texas) Electric Utility	182,726
12.	Snohomish County Public Utility District, Everett, Wash.	151,521
13.	Knoxville (Tenn.) Utilities Board	131,750
14.	Chattanooga (Tenn.) Electric Power Board	125,686
15.	Colorado Springs (Colo.) Department of Public Utilities	108,159
16.	Nebraska Public Power District, Columbus, Neb.	107,475
17.	Tacoma (Wash.) City Light	107,230
18.	Orlando (Fla.) Utilities Commission*	87,729
19.	Anaheim, City of, Cal.*	86,993
20.	Clark County Public Utility District, Vancouver, Wash.	82,909

NET ELECTRIC PLANT—1982

1.	Salt River Project, Phoenix, Ariz.	$2,849,817,241
2.	New York Power Authority	2,553,832,000
3.	Los Angeles (Cal.) Department of Water and Power	2,522,667,388
4.	Nebraska Public Power District, Columbus, Neb.	1,454,899,549
5.	South Carolina Public Service Authority*	1,444,422,681
6.	San Antonio (Texas) City Public Service Board	1,393,195,396
7.	Puerto Rico Electric Power Authority*	1,352,247,000
8.	Municipal Electric Authority of Georgia	1,082,949,138
9.	Sacramento (Cal.) Municipal Utility District	968,098,303
10.	Austin (Texas) Electric Utility	945,160,062
11.	Omaha (Neb.) Public Power District	907,921,051
12.	Chelan County Public Utility District, Wenatchee, Wash.	613,652,870
13.	Massachusetts Municipal Wholesale Electric Co.	515,863,000
14.	Jacksonville (Fla.) Electric Authority*	502,381,746
15.	Lower Colorado River Authority, Austin, Texas	494,812,743
16.	Grand River Dam Authority, Vinita, Okla.	454,254,690
17.	Seattle (Wash.) City Light	439,885,586
18.	California Department of Water Resources	435,297,197
19.	Tacoma (Wash.) City Light	321,194,427
20.	Lincoln (Neb.) Electric System	318,514,000

KWH SALES—1982

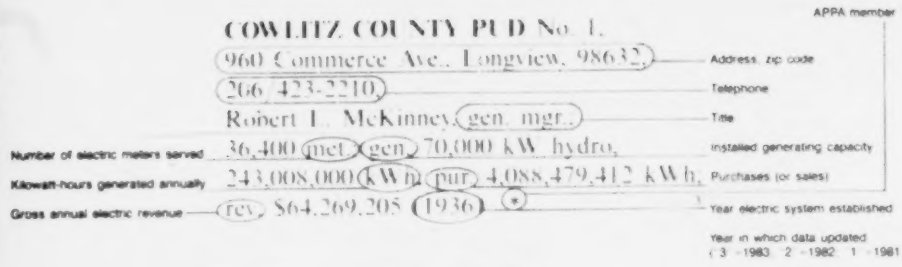
1.	New York Power Authority	39,862,361,000
2.	Los Angeles (Cal.) Department of Water and Power	18,664,590,354
3.	Salt River Project, Phoenix, Ariz.	13,307,862,591
4.	Chelan County Public Utility District, Wenatchee, Wash.	11,783,086,790
5.	Puerto Rico Electric Power Authority*	10,235,500,000
6.	Grant County Public Utility District, Ephrata, Wash.	9,030,575,259
7.	South Carolina Public Service Authority*	8,879,984,000
8.	Memphis (Tenn.) Light, Gas and Water Division	8,644,357,000
9.	San Antonio (Texas) City Public Service Board	8,460,314,564
10.	Seattle (Wash.) City Light	8,350,791,000
11.	Sacramento (Cal.) Municipal Utility District	8,322,419,000
12.	Nebraska Public Power District, Columbus, Neb.	8,248,006,148
13.	Nashville (Tenn.) Electric Service*	7,455,991,000
14.	Tacoma (Wash.) City Light	6,546,686,504
15.	Jacksonville (Fla.) Electric Authority*	5,771,518,000
16.	Omaha (Neb.) Public Power District	5,552,545,000
17.	Municipal Electric Authority of Georgia	5,480,372,000
18.	Lower Colorado River Authority, Austin, Texas	5,307,336,989
19.	Austin (Texas) Electric Utility	5,304,867,290
20.	Chattanooga (Tenn.) Electric Power Board	4,645,451,915

ELECTRIC REVENUES—1982

1.	New York Power Authority	$1,141,791,417
2.	Los Angeles (Cal.) Department of Water and Power	1,136,692,168
3.	Puerto Rico Electric Power Authority*	1,124,112,000
4.	Salt River Project, Phoenix, Ariz.	650,660,281
5.	San Antonio (Texas) City Public Service Board	517,141,675
6.	Memphis (Tenn.) Light, Gas and Water Division	410,352,953
7.	Jacksonville (Fla.) Electric Authority*	389,909,422
8.	Nashville (Tenn.) Electric Service*	332,106,583
9.	Austin (Texas) Electric Utility	326,340,890
10.	South Carolina Public Service Authority*	307,755,000
11.	Nebraska Public Power District, Columbus, Neb.	292,176,079
12.	Sacramento (Cal.) Municipal Utility District	241,151,211
13.	Omaha (Neb.) Public Power District	233,319,000
14.	Municipal Electric Authority of Georgia	226,065,746
15.	Lower Colorado River Authority, Austin, Texas	222,826,794
16.	Chattanooga (Tenn.) Electric Power Board	213,733,804
17.	Knoxville (Tenn.) Utilities Board	180,387,443
18.	Seattle (Wash.) City Light	150,263,961
19.	Orlando (Fla.) Utilities Commission*	149,579,106
20.	North Carolina Eastern Municipal Power Agency	129,967,000

*Fiscal year not coincident with calendar year.

Sources: Annual reports and data reported to APPA.


COWLITZ COUNTY PUD No. 1,
960 Commerce Ave., Longview, 98632,
206/423-2210,
Robert L. McKinney, gen. mgr.,
Number of electric meters served 36,400 (met.) (gen.) 70,000 kW hydro,
Kilowatt-hours generated annually 243,008,000 (kWh) (pur.) 4,088,479,412 kWh,
Gross annual electric revenue (rev.) $64,269,205 (1936) (*)
APPA member
Address, zip code
Telephone
Title
Installed generating capacity
Purchases (or sales)
Year electric system established
Year in which data updated
(3 = 1983, 2 = 1982, 1 = 1981, 0 = 1980)

ALABAMA

(Systems designated "TVA" are distributors of Tennessee Valley Authority power and purchase all of their power from TVA.)

ALBERTVILLE Mun Utils. Board, 210 West Main St., Box 130, 35950, 205/878-3761, James W. Johnson, gen. mgr.; 6,777 met; pur. 318,990,523 kWh; rev. $13,157,851. (TVA) (1938)*

ALEXANDER CITY Elec. Dept., Russell Road, Box 552, 35010, 205/329-8427, Glenn Bolan, supt; 4,926 met; no gen.; pur. 80,240,500 kWh; rev. $3,828,338 (1930s)*

ANDALUSIA Elec. Dept. City Hall, 36420, 205/222-1332, 4,383 met.; no gen.; pur. 80,034,400 kWh; rev. $4,584,000. (1944)

ATHENS Elec. Dept., Box 1089, 35611, 205/233-2220, Alfred M. McCown, mgr.; 19,993 met.; pur. 421,317,483 kWh; rev. $18,268,780. (TVA) (1935)*

BESSEMER Utils., 1600 First Ave., N., Box 846, 35021, 205/424-2301, W. G. Pettey Jr., util. mgr.; 12,934 met.; sales 255,352,561 kWh; rev. $11,082,918. (TVA) (1939)*

BRUNDIDGE Elec. Dept., Box 338, 36010, 205/735-2321, Jack V. Taylor, mgr.; 1,200 met.; no gen.; pur. 22 million kWh; rev. $1,200,000 (1950)

COURTLAND Elec. Dept., Box 160, 35618, 205/637-2707, Denzel Reding, supt.; 803 met., pur. 13.3 million kWh; rev. $610,000. (TVA) (1935)

CULLMAN Power Bd., Drawer 927, 35055, 205/734-2343, Jimmy Garrett, mgr.; 6,724 met.; pur. 224 million kWh; rev. $10,332,129 (TVA) (1947)*

DECATUR UTILITIES Box 2232, 35602, 205/350-6180, George Godwin Jr., gen. mgr.; 18,444 met.; pur. 1,019,076,795 kWh; rev. $40,165,919. (TVA) (1939)

DOTHAN, City of, Elec. Dept. Box 2128, 126 N. St. Andrews St., 36302, 205/793-0349, Wylie H. Smith, supt.; 21,371 met.; no gen.; pur. 657,702,760 kWh; rev. $32,318,392. (1903)*

ELBA Water & Elec. Dept. 300 Buford St., 36323, 205/897-2261, Cleo Hawkins, supt., 1,600 met.; pur. 36,000,000 kWh; rev. $185,000.

EVERGREEN Mun. Light Dept., 36401, J.W. Weaver, supt.; 32 million kWh.

FAIRHOPE Elec. Dept., 387 Fairhope Ave., Drawer 429, 36532, 205/928-2136, Aaron Norris, elec. supvr.; 3,534 met.; no gen.; sales 59 million kWh; rev. $3,434,723. (1923)*

FLORENCE, City of, Elec. Dept., Box 877, 110 W. College St., 35631, 205/764-7271, J. H. McClanahan, mgr.; 33,809 met.; pur. 777,970,725 kWh; rev. $36,510,357. (TVA) (1936)

FORT PAYNE Improvement Authority, Box 617, 35967, 205/845-0671, Richard C. Griffin, gen. mgr.; 6,254 met.; pur. 166 million kWh; rev. $7,856,630. (TVA) (1940)

GUNTERSVILLE Elec. Bd., 325 Gunter Ave., 35976, 205/582-5691, C. H. Gordon, mgr.; 4,642 met; pur. 152.7 million kWh; rev. $6,673,253. (TVA) (1939)*

HARTFORD Water & Light Dept., 203 W. Main St., 36344, 205/588-2245; H. R. Lee, supt.; 1,100 met.; no gen.; pur. 22 million kWh.

HARTSELLE Elec. Bd., Box 847, 35640, 205/773-2588, Max King, mgr.; 3,934 met.; sales 95,409,572 kWh; rev. $4,241,585. (TVA) (1938)

HUNTSVILLE City of, Elec. Sys., 112 Spragins Street, Box 2048, 35801, 205/533-0300, E. E. Cobb, gen. mgr.; 78,409 met.; pur. 2,434,223,981 kWh; rev. $103,392,595. (TVA) (1941)*

LAFAYETTE, City of, Mun. Light Plant, 50 Avenue A, Box 87, 36862, 205/864-3812, Clyde Eugene Lamb, elec. dept. supt.; 1,302 met.; no gen.; sales 17 million kWh; rev. $1,057,734. (1911)

LANETT, City of, Box 290, 36863, 205/644-2141, Ross Whitman, util. supt.; 3,296 met.; no gen.; pur. 50,337,277 kWh; rev. $301,459.

LUVERNE Electric Board, Box 249, 36039, 205/335-3741, R. P. Coggins Jr., supt.; 1,410 met.; no gen.; pur. 31,853,280 kWh; rev. $1,536,089.

MUSCLE SHOALS Elec. Bd., 1000 Avalon Ave., 35660, 205/383-6681, T. D. Lasater, mgr.; 4,125 met.; pur. 150,928,152 kWh; rev. $6,961,561. (TVA) (1933)*

OPELIKA Light & Power Dept., 1010 Ave. C, Box 390, 36801, 205/745-4681, B. J. Douglas, dir.; 8,871 met.; no gen.; sales 230,728,000 kWh; rev. $11,516,978. (1910)*

OPP, City of, Utils. Bd., Box 311, 36467, 205/493-4571, Charles McGowan, mgr.; 3,236 met.; no gen.; pur. 2,276,500 kWh; rev. $2,867,755. (1943)

PIEDMONT, City of, Elec. Sys., Box 112, 36272, Kenneth Jackson, supt.; 2,200 met.; no gen.; pur. 38 million kWh; rev. $1.3 million.

ROBERTSDALE, City of, Mun. Utils., Drawer CC, 36567, 205/947-2144, Paul N. Edhegard, supt. of utils.; 1,239 met.; no gen.; pur. 25.7 million kWh; rev. $1,310,423. (1924)

RIVIERA UTILITIES, 413 E. Laurel Ave., Box 550, Foley 36536, 205/943-5001, H. Sewell St. John Jr., gen. mgr.; 14,375 met.; no gen.; pur. 263,966,887 kWh; rev. $14,628,074. (1941)*

RUSSELLVILLE Elec. Bd., Box 1148, 35653, 205/332-3850, Robert L. Stephenson, mgr.; 3,936 met.; no gen.; pur 108.3 million kWh; rev. $4,241,812. (TVA) (1938)

SCOTTSBORO Electric Power Bd., Box 399, 35768, 205/574-2680, L. E. Price, mgr.; 6,769 met.; pur. 301,685,760 kWh; rev. $12,544,491. (TVA) (1939)*

SHEFFIELD Power, Water & Gas Dept., Box 580, 35660, 205/383-5221, R. A. Azbell, gen. mgr.; 15,306 met.; pur. 432,360,733 kWh; rev. $19,716,137. (TVA) (1936)*

SYLACAUGA Utils. Bd., Box 207, 35150, 205/249-0372, William T. Scott, mgr.; 5,432 met.; no gen.; pur. 114,900,000 kWh; rev. $6,142,108. (1955)*

TARRANT CITY Elec. Dept., 1000 Ford Ave., Box 6536, 35217, 205/841-1721, Robert J. Burns, supt.; 2,562 met.; sales 44,862,024 kWh; rev. $2,434,014. (TVA) (1933)

TROY Elec. Dept., Box 549, 36081, 205/566-2130, G. H. Reeves, supt.; 4,575 met.; no gen.; pur. 140,864,000 kWh; rev. $6,160,619. (1895)

TUSCUMBIA Elec. Dept., Box 269, 35674-0269, 205/383-0321, Charles P. Ricks, mgr.; 3,667 met.; pur. 84,796,746 kWh; rev. $3,772,825. (TVA) (1937)*

TUSKEGEE, City of, 210 N. Main St., 36083, 205/727-6227, William Turner Jr., supt.; 6,763 met.; no gen.; pur. 1,444,239 kWh; rev. $4,162,190. (1954)

ALASKA

AKUTAN ELECTRIC UTILITY, Box 557, Dutch Harbor 99692, 907/698-2228, Jacob M. Stepetin, mayor, 40 met.; gen. 180 kW diesel, 86,000 kWh; pur. none; rev. (six months) $20,000. (1982)

ALASKA POWER AUTHORITY, 334 West 5th Ave., Anchorage, 99501, 907/276-0001, Larry Crawford, exec. dir.; one customer (wholesale); gen. 12,000 kW hydro, 31 million kWh; pur. none; $924,000. (1976)*

ANCHORAGE Mun. Light & Power, 1200 E. First Ave., 99501, 907/279-7671, Thomas R. Stahr, gen. mgr.; 18,182 met.; gen. 231,300 kW, 152,300 kW comb. turbine; 79,000 kW gas combustion turbine, 579,474,020 kWh; pur. 71,166,727 kWh; rev. $26,898,802. (1932)*

CHIGNIK, City of, 99564, 907/749-2207, Arlene Kopun, clerk; 40 met. (1981)

FAIRBANKS Mun. Utils., 645 Fifth Ave., Box 2215, 99701, 907/456-1000, Virgil Gillespie, gen. mgr.; 5,963 met.; gen. 60,000 kW, 29,000 kW coal-fired steam, 23,000 kW turbine, 8,000 oil-fired eng.,

* denotes APPA membership

175,727,000 kWh; pur. 9,581,600 kWh; rev. $9,938,822. (1949)

KETCHIKAN Pub. Utils., 334 Front St., Box 7300, 99901, 907/225-3111, ext. 330, Richard D. Newland, util. mgr.; 5,987 met.; gen. 27,000 kW, 15,000 kW oil, 12,000 kW hydro, 96,907,842 kWh; pur. none. (1935)

KING COVE, City of, Box 37, 99612, 907/497-2340, Cynthia Samuelson, city clerk; 125 met.; 600 kW eng.; pur. none; $136,000. (1950)

KLUKWAN INDIAN VILLAGE, Box 220, Haines 99827, 907/766-2805, Joe Hotch Jr., mgr.; 50 met.; diesel gen.; pur. none. (1968)

KOTLIK, City of, 99620, 907/899-4111, Benny Kamkoff, mgr.; 96 met. (Billing by United Utilities, Box 4-2730, Anchorage 99509.) (1982)

KUIGGLUUM KALLUGVIA, c/o Kwethluk Inc., Kwethluk 99621, 907/757-6613, Frank D. Nicori, mgr.; 115 met; 550 kW eng.; $100,000. (1977)

MANOKOTAK, Village of, 99628, 907/842-5978, Moses Toyukak, mayor; 75 met. (1976)

METLAKATLA Power and Light, Box 346, 99926, 907/886-6661, Warren B. Dorland, gen. mgr.; 455 met.; gen. 6,000 kW, 3,000 kW hydro, 3,000 kW eng., 16,000,000 kWh; rev. $1,200,000. (1927)

NOME Joint Utils., Box 70, 99762, 907/443-5288, Dean Wolfe, mgr.; 1,157 met.; gen. 5,400 kW eng., 13,687 million kWh; pur. none; rev. $2,912,172. (1954)

NORTH SLOPE BOROUGH UTILITIES, Box 79, Barrow 99723, 907/852-2611, ext. 207; 740 met.; Jim Wilcox, acting util. mgr.; gen. 5,435 kW eng., 7 million kWh, pur. none; rev. $1,530,545. (1980) (NSB Utilities operates in seven villages: Anaktuvuk Pass, Atqasuk, Kaktovik, Nuiqsut, Point Hope, Point Lay and Wainwright.)

PETERSBURG Mun. Light and Power, Box 329, 99833, 907/772-4203, Howard Thacke, supt.; 1,415 met.; gen. 7,100 kW, 2,000 kW hydro, 5,100 kW eng., 22,265,977 kWh; pur. none; rev. $2,067,847. (1924)

SEWARD Elec. Municipal Bldg., Box 167, 99664, 907/224-3331, Tom Small, engr.; 1,600 met.; gen. 5,500 kW oil-fired eng.; 1,281,000 kWh; pur. 27.3 million kWh; rev. $1,710,248. (1955)*

SITKA Mun. Utils., Lincoln St., Box 79, 99835, 907/747-6633, James D. Dwyer, supt.; 3,253 met.; gen. 29,000 kW, 7,000 kW eng., 22,000 kW hydro, 54 million kWh; pur. 610,600 kWh; rev. $4,322,800. (1941)

UNALASKA Elec. Dept., Pouch 89, 99685, Nancy Gross, city mgr.; 200 met.; gen. 900 kW diesel, 1.7 million kWh; rev. $250,000.

WRANGELL Light & Power Dept., Box 531, 99929, 907/874-2381, Frank Fields, supt.; 1,100 met.; gen. 7,750 kW oil-fired eng., 11 million kWh; pur. 577,000 kWh; rev. $1,795,357.

ARIZONA

ARIZONA POWER AUTHORITY, 1810 W. Adams St., Box 6694, Phoenix, 85005, 602/255-4263, Lester S. Ormsby, admn.; 17 met. (wholesale); no gen., pur. 711,100,188 kWh; rev. $6,821,751. (1944)*

CORTARO WATER USERS ASSN., 13864 N. Sandario Rd., Marana, 85238, 602/682-3233; Pat Garrett, gen. mgr.; 450 met.; no gen.; $800,000.

ELECTRICAL DISTRICT NO. 1, Pinal County, 711 E. Cottonwood Lane, Suite C, Casa Grande, 85222, 602/836-8201, M. S. Ray, mgr.; 67 met.; sales 48,220 kWh; rev. $1,259,785.

ELECTRICAL DISTRICT NO. 2, Pinal County, Box 548, Coolidge, 85228, 602/723-7741, William J. Metheny, gen. mgr.; 2,378 met.; no gen.; pur. 219,380,404; $7,129,290 rev. (1926)*

ELECTRICAL DISTRICT NO. 3, Pinal County, 711 E. Cottonwood Lane, Suite C, Casa Grande, 85222, 602/836-8201, W. A. Dunn, bd. chmn.; dir.; 489 met; no gen.; pur. 292,067,640 kWh; rev. $6,940,238. (1961)*

ELECTRICAL DISTRICT NO. 4, 231 S. Sunshine Blvd., Eloy, 84231, 602/466-7336, James Sweeney, mgr.; 400 met.; no gen.; pur. 128.8 million kWh; rev. $1,420,319. (1936)

ELECTRICAL DISTRICT NO. 5, Pinal County, Box 8, Red Rock, 85245, William D. Woehlecke, gen. mgr.; 265 met.; no gen.; pur. 86.4 million kWh; rev. $550,820.

ELECTRICAL DISTRICT NO. 6, Pinal County, Suite 720, 2845 E. Camelback Rd., Phoenix, 85016, Raymond D. Schnepf, chmn., 192 met.; no gen.; pur. 114,630,903 kWh; rev. $5,031,304. (1965)

HOLBROOK, 86025. (Town owns distribution system; leased to Arizona Public Service Co.)

MARICOPA WATER DISTRICT, Box 730, Peoria, 85345, H. S. Raymond, gen. mgr.; 83 met.; no gen.; pur. 39 million kWh; rev. $1,064,622.*

MESA, City of, 730 N. Mesa Dr., Box 1466, 85201, 602/834-2265; Richard R. Williams, elec. util. mgr., 10,838 met.; no gen.; pur. 209,292,600 kWh; rev. $11,615,928. (1917)*

NAVAJO TRIBAL UTILITY AUTHORITY, Box 170, Fort Defiance, 86504, 602/729-5721, Malcolm P. Dalton, gen. mgr.; 19,024 met.; no gen.; 504,196,975 kWh; rev. $19,638,946. (1966)*

PAPAGO TRIBAL UTILITY AUTHORITY, Box 816, Sells, 85634, 602/383-2236, Jerrel D. Huey, gen. mgr.; 1,800 met.; no gen.; pur. 113, 637,000 kWh; rev. $3,691,000. (1970)

ROOSEVELT WATER CONSERVATION DISTRICT (Irrigation), Box 168, Higley, 85236, 602/963-3414, Grant R. Ward, gen. mgr.; no gen.; pur. 92 million kWh; rev. $3,400,000. (1924)

SAFFORD, City of, 717 Main St., Box 272, 85546, 602/428-2762, Max L. Norris, elec. serv. dir; 2,960 met.; sales 36,282,354 kWh; rev. $2,688,918. (1937)*

SALT RIVER PROJECT, Box 1980, Phoenix, 85001, 602/273-5900, A. J. Pfister, gen. mgr.; 341,411 met.; gen. 3,453,040 kW, 1,822,527 kW coal, 528,472 kW gas (steam turbine); 449,800 kW gas (combus. turbine); 414,000 gas (comb. cycle); 238,241 (hydro); 12,643,000 kWh; pur. 1,737,537,000 kWh; rev. $650,660,281. (1909)*

THATCHER Mun. Utils., 230 College Ave., Box 670, 85552, 602/428-2290, Herbert Winsor, mgr.; 653 met.; no gen.; pur. 8,810,400 kWh; rev. $537,275. (1946)*

WELLTON-MOHAWK IRRIGATION & DRAINAGE DISTRICT, Route 1, Box 19, Wellton, 85356, 602/785-3351 ext. 241, C. L. Gould, mgr.-secy.; 2,768 met.; gen. 1,200 kW oil (eng.); 142,366,299*kWh; rev. $2,388,789. (1942)*

WICKENBURG, Town of, Box 1269, 120 E. Apache, 85358, 602/684-5451, Coney Orosco, dir. of pub. works; 1,075 met.; no gen.; sales 13,251,498 kWh; rev. $941,423. (1947)

WILLIAMS, 86046. (Town owns distribution system; leased to Arizona Public Service Co.)

ARKANSAS

AUGUSTA City Light, Water & Gas Plant, 100 S. Fifth St., 72006, Ronnie Stracener, mgr.; 1,201 met.; gen. 2,838 kW eng., 2.8 million kWh; pur. 16 million kWh; rev. $407,527.

BENTON Utils., 222 W. South St., Box 607, 72015, 501/778-2546, E.L. Cody, gen. oper. supt.; 7,035 met.; gen. 500 kW oil (eng.); 8,500 kW dual-fuel; 860,700 kWh; pur. 107,310,000 kWh; rev. $6,300,948.(1918)

BENTONVILLE Light & Water System, City Hall, 115 W. Central, 72712, 501/273-9061, Wayne Holloway, elec. supt.; 3,800 met.; no gen.; pur. 75.8 million kWh; rev. $1,927,368. (1902)

CLARKSVILLE Light & Water Co., Box 99, 72830, 501/754-3148, Ottis R. Cude, mgr.; 2,849 met.; no gen.; pur. 69,137,323 kWh; rev. $2,182,233. (1932)*

CONWAY Corp., 1319 Prairie St., Box 99, 72032, 501/329-5641, James H. Brewer, gen. mgr.; 8,396 met.; gen. 32,620 kW coal (steam turbine), 171,888,782 kWh; pur. 37,116,063 kWh; rev. $10,860,991. (1929)*

HOPE Water & Light Plant, Box 667, 71801, 501/777-6701, John D. Swift, utils. mgr.; 5,929 met.; no gen.; pur. 123,242,800 kWh; rev. $6,013,427. (1910)*

JONESBORO City Water & Light, 400 E. Monroe, Box 1289, 72401, 501/935-5581, Marion R. Ulmer, mgr.; 14,855 met.; gen. 124,000 kW coal (steam turbine), 126,796,000 kWh; pur. 274,276,584 kWh; rev. $16,165,165. (1906)*

NORTH LITTLE ROCK, City of Elec. Dept., 800 Main St., Box 159, 72114, 501/372-0100, Robert Hogan, gen. mgr.; 32,139 met; no gen.; pur. 555,652,490 kWh; rev. $30,081,222. (1903)*

OSCEOLA Mun. Light & Power, 316 W. Hale Ave., 72370, 501/563-5245, Jack L. Wilson, util. mgr.; 3,816 met.; gen. 4,090 kW oil-fired eng. stand-by; pur. 108,310,100 kWh, rev. $5,698,623. (1928)*

PARAGOULD Light Plant Commission, 303 W. Court St.,

72450, 501/236-8571, John H. McDaniel, mgr.; 7,985 met.; no gen.; pur. 213,440,000 kWh; rev. $5,102,842. (1938)*

PARIS Mun. Light & Water Plant, Box 271, 72855, 501/963-2450, William McKelvy, mgr.; 1,650 met.; no gen.; pur. 28 million kWh; rev. $952,000.

PIGGOTT Municipal Light, Water & Sewer, 194 W. Court St., 72454, 501/598-3243, Denver Turner, mgr.; 1,987 met.; gen. 2,277 kW oil (eng.), 5,123 kW dual-fuel, 20,000 kWh; pur. 28,128,654 kWh, $1,184,548. (1923)*

PRESCOTT Water & Light Plant, 118 W. Elm St., 71857, 501/887-2210, Larry Stockton, gen. mgr.; 1,850 met.; no gen.; pur. 1,787,533 kWh; rev. $2,433,893. (1921)

SILOAM SPRINGS, City of, 410 N. Broadway, 72761, 501/524-5136, James R. Kirchoff, util. supt.; 3,700 met.; no gen.; pur. 109 million kWh; rev. $3.93 million. (1901)*

WEST MEMPHIS Util. Comm., 604 E. Cooper, Box 38, 72301, P. G. Para, mgr.; 10,350 met.; no gen.; pur. 237 million kWh.

CALIFORNIA

ALAMEDA Bureau of Elec., 2000 Grand St., 94501, 415/522-7411, Jack Shepard, gen. mgr. and chief engr.; 27,244 met.; no gen.; pur. 355,566,000 kWh; rev. $23,528,000. (1887)*

ANAHEIM, City of, Pub. Utils. Dept., 200 S. Anaheim Blvd., Box 3222, 92805, 714/999-5100, Gordon W. Hoyt, util. dir.; 86,993 met.; no gen.; pur. 1,844,800,513 kWh; rev. $128,500,000. (1895)*

AZUSA, City of, Light & Power Dept., 777 N. Alameda Ave., Box 667, 91702, 213/334-0215, Joseph F. Hsu, util. dir.; 11,727 met.; no gen.; pur. 153,000,000 kWh; rev. $9,632,031. (1898)*

BANNING, City of, 161 W. Ramsey St., Box 998, 92220, 714/849-4511, Gene Cranford, elec. supt.; 7,000 met.; no gen.; pur. 67,000,000 kWh; rev. $5,000,000. (1923)*

BIGGS, City of, Box 307, 95917, 916/868-5493, W.T. West, dir. pub. wks.; 563 met.; no gen.; sales 8,693,000 kWh; rev. $245,585. (1903)*

BURBANK, City of, Pub. Service Dept., 164 W. Magnolia Blvd., Box 631, 91502, 213/847-9640, Ronald O. Snyder, gen. mgr.; 43,671 met.; gen. 152,000 kW gas (steam turbine), 70,000 kW gas (combus. turbine), 408,765,000 kWh; pur. 569,830,000 kWh; rev. $54,732,683. (1913)*

CALAVERAS COUNTY Water District, Box 846, San Andreas, 95246, 209/754-3543, Steve Felte, gen. mgr. (The district plans to generate hydropower for sale to public power systems.) (1947)*

CALIFORNIA DEPT. OF WATER RESOURCES, 1416 Ninth St., Sacramento, 95814, 916/445-9890, David N. Kennedy, director; 3 met.; no. retail customers; gen. 1,175,340 kW hydro, 4,757,535,626 kWh; pur. 4,632,319,961 kWh; rev. $43,527,915. (1958)*

COLTON, City of, 650 N. La Cadena Dr., 92324, 714/825-3110, ext. 37, Gale A. Drews, elec. util. dir.; 8,856 met.; no gen.; sales 112,046,323 kWh; rev. $8,970,589. (1897)*

EAST BAY Mun. Util. Dist., Box 24055, Oakland, 94623, 415/835-3000, J. B. Gilbert, gen. mgr.; 2 met. (output sold to Pacific Gas & Electric); gen. 18,750 hydro; 119,220,653 kWh; rev. $690,647. (1930)

GLENDALE Pub. Service Dept., 119 N. Glendale Ave., 91206, 213/956-3977, W. H. Fell, gen. mgr. and ch. engr.; 67,795 met.; gen. 117,000 kW gas (steam turbine), 53,000 kW gas (combus. turbine), 98,000 kW gas (comb. cycle), 247,378,000 kWh; pur. 735,738,000 kWh; rev. $54,974,782. (1909)*

GRIDLEY, City of, 685 Kentucky St., 95948, 916/846-3631, David McEntyre, pub. serv. coord.; 1,659 met.; no gen.; pur. 20.5 million kWh; rev. $621,318. (1910)*

HAYFORK VALLEY PUD, Box 1186, Hayfork, 96041, 916/628-4454, Bill Hinman, chair., bd. of dirs. (authorized in 1983, not yet operating).

HEALDSBURG, City of, Mun. Elec., 755 Westside Road, Box 578, 95448-0578, 707/433-9425, Dennis Mrkvicka, elec. util. dir.; 3,905 met.; no gen.; pur. 54,643,000 kWh; rev. $3,860,968 (1900)*

HETCH HETCHY WATER & POWER PROJECT, 693 Vermont St., San Francisco, 94107, 415/558-3038, Dean Coffey, gen. mgr.; 20 met.; no retail residential customers; gen. 292,500 kW hydro, 2,352, 926,000 kWh; sales 2,238,930,016 kWh; rev. $75,634,903 (1925)*

IMPERIAL IRRIGATION DISTRICT, 333 E. Main St., Imperial, 92251, 619/339-9225, Henry Legaspi, mgr. power dept.; 56,580 met.; gen. 189,000 kW oil (steam turbine), 165,000 kW oil (combus. turbine), 13,276 kW oil (eng.), 77,380 kW hydro, 589,663,696 kWh; pur. 816,250,985 kWh; rev. $70,753,950. (1936)

LODI, City of, 221 W. Pine St., Box 320, 95241, 209/334-5634, David K Curry, util. dir.; 16,645 met.; no gen.; pur. 230,186,602 kWh; rev. $15,273,297. (1910)*

LOMPOC, City of, 100 Civic Center Plaza, 93438, 805/736-1261, James B. Dixon, dir., util. serv., 10,775 met.; no gen.; pur. 85,211,462 kWh; rev. $4,679,806. (1923)*

LOS ANGELES Dept. of Water and Power, 111 N. Hope St., Box 111, 90051, 213/481-4104, ext. 5651, Paul Lane, gen. mgr. and chief engr.; 1,226,911 met.; gen. 3,207,000 kW gas/oil, 1,076,000 kW coal (steam turbine), 76,000 kW gas/oil (comb. turbine), 1,951,000 kW hydro. 14,103,000,000 kWh; pur. 8,683,412,000 kWh; rev. $1,136,692,167. (1925)*

MERCED IRRIGATION DISTRICT, Box 2288, Merced, 95344, 209/722-5761, Ray Anderson, sec. mgr.; wholesale only, gen. 92,700 kW hydro, 542.6 million kWh; pur. none; rev. $1,915,000. (1919)

MODESTO IRRIGATION DISTRICT, Box 4060, Modesto, 95352, 209/578-1212, H.L. (Les) Brooks, gen. mgr., 66,421 met.; gen. 99,000 kW oil (combus. turbine), 45,505 kW hydro, 387,934,255 kWh; pur. 972,355,174 kWh; rev. $50,727,699. (1923)*

OROVILLE WYANDOTTE IRRIGATION DISTRICT, Box 117, Forbestown, 95941, 916/534-1221, Steven C. Onken, power supt.; gen. 101,000 kW hydro, 500 million kWh. (Output sold to Pacific Gas & Electric Co.) (1963)

PALO ALTO, City of, Elec. Util., 250 Hamilton Ave., 94301, 415/329-2656, Richard L. Young, dir. utils.; 25,910 met.; no gen.; pur. 907,522,000 kWh; rev. $22,438,000. (1900)*

PASADENA, City of, Water & Power Dept., 100 N. Garfield Ave., 91109, 213/577-4409, Karl A. Johnson, gen. mgr.; 52,281 met.; gen. 516,000,000 kWh; pur. 413.2 million kWh; rev. $45,817,062. (1906)*

PLACER COUNTY WATER AGENCY, Box 667, Foresthill, 95631, 916/885-6917, Elmer Pretzer, power systems mgr.; gen. 234,000 kW (hydro); 558,464,271 kWh; rev. $5,628,000; (Output sold to Pacific Gas and Electric.) (1966)

REDDING, City of, Elec. Dept., 760 Parkview Ave., 96001, 916/246-1151, Sam Lindley, dir. elec. dept.; 22,354 met.; no gen.; pur. 464,285,787 kWh; rev. $10,920,256. (1921)*

RIVERSIDE, City of, Pub. Util. Dept., 3900 Main St., 92522, 714/787-7482, Fred Kray, pub. util. dir.; 68,747 met.; no gen.; pur. 1,112,933,000 kWh; rev. $78,233,183. (1911)*

ROSEVILLE, City of, 316 Vernon St., 95678, 916/783-9151, Quentin Mizer, elec. util. dir.; 11,758 met.; no gen.; pur. 197,562,510 kWh; rev. $5,204,675. (1912)*

SACRAMENTO Mun. Util. Dist., Box 15830, 95813, 916/452-3211, John J. Mattimoe, gen. mgr.; 345,496 met.; gen. 917,000 kW nuclear (steam turbine), 653,000 kW hydro, 6,545,483,000 kWh; pur. 1,921,685,000 kWh; rev. $182,773,284. (1947)*

SAN FRANCISCO Pub. Utils. Comm., Rm. 287, City Hall, 94102, 415/558-4986, Richard Sklar, gen. mgr.; 861 met. (municipal and wholesale only); rev. $11,314,000.

SANTA CLARA, City of, Mun. Elec. Dept., 1500 Warburton Ave., 95050, 408/984-3161, Barry R. Flynn, dir., elec. util.; 40,067 met.; gen. 5,900 kW cogeneration (gas), 13,535,084 kWh; pur. 1,739,451,434 kWh; rev. $61,863,939. (1896)*

SHASTA DAM AREA PUD, 1650 Stanton Dr., Box 777, Central Valley, 96019, 916/275-8827, John Q. Borgwhat, mgr.; 3,404 met.; no gen.; pur. 56,769,166 kWh; rev. $1,235,110. (1945)*

TRINITY COUNTY PUD, Box V, Weaverville 96093, 916/623-5536, Harry Bailey, gen. mgr.; 1,633 met.; no gen.; pur. 19,476,978 kWh; rev. $1,567,874. (1982) (acquired from CP National)

TRUCKEE-DONNER PUD, Box 309, Truckee, 95734, 916/587-3896, James M. Ward, gen. mgr.; 5,581 met.; no gen.; pur. 74,693,700 kWh; rev. $5,218,460. (1927)*

TUOLUMNE COUNTY Public Power Agency, 2 S. Green St., Sonora, 95370, 209/533-5511, Dominic Salluce, agency coordinator, 193 met.; no gen., pur. (9 mo.) 12.7 million kWh; rev. (9 mo.) $296,000. (distributes power only to local public entities) (1982)

TURLOCK IRRIGATION DISTRICT, 333 E. Canal Drive, Turlock, 95380, 209/632-3861, Ernest Geddes, gen. mgr.; 43,877 met.; gen. 121,859 kW hydro, 828,612,752 kWh; pur. 150,011,080 kWh; rev. $28,246,682. (1922)*

UKIAH, City of, 203 S. School St., 95482, 707/462-2971, Maurice K. Roper, elec. dist. engr.; 6,009 met.; no gen.; pur. 82,128,150 kWh; rev. $5,984,791. (1897)*

VERNON, Light & Power Dept., 4305 Santa Fe Ave., 90058 213/583-8811, Bruce V. Malkenhorst, exec. dir.; 2,083 met.; no gen.; pur. 1,222,631,000 kWh; rev. $61,596,196. (1933)*

YUBA COUNTY WATER AGENCY, Box 176, Dobbins, 95935, 916/692-1633, Daryl D. Sutton, mgr.; gen. 365,000 kW hydro, 2,761,014,000 kWh.; rev. $8,983,389. (Present output sold to Pacific Gas & Electric Co.) (1966)

COLORADO

ASPEN, City of, 130 S. Galena, 81611, 303/925-2020, ext. 241, Thomas J. Maddalone, elec. dept. head; 2,100 met.; no gen.; pur. 39,235,200 kWh. (1956)*

BURLINGTON, City of, 480 15th St., 80807, 303/346-8585, Lester R. McLain, city mgr.; 1,830 met.; gen. 4,600 kW eng.; 7,550 kW dual-fuel; sales 163,377 kWh; rev. $1,204,348. (1920)

CENTER Mun. Elec. Lt. & Pwr., Box 400, 81125, 303/754-3497, Darrell T. Davis, supt.; 752 met.; no gen.; pur. 6,608,712 kWh; rev. $363,263. (1941)*

COLORADO SPRINGS, Dept. of Pub. Utils., 30 N. Nevada Ave., Box 1103, 80947, 303/636-5582, James D. Phillips, dir.; 108,159 met.; gen. 616,000 kW, 2,577,553,000 kWh; pur. 278,022,000 kWh; rev. $99,804,082. (1925)*

DELTA Mun. Light & Power, 1133 Main St., Box 19, 81416, 303/874-7566, Richard Baker, power plt. supvr.; 2,128 met.; gen. 4,2 kW oil, 4,567 kW dual-fuel (eng.), 1,732,400 kWh; pur. 27,597,504 kWh; rev. $1,787,577. (1937)*

ESTES PARK, Town of, Light & Power Dept., Box 1200, 80517, 303/586-5331, Robert L. Dekker, dir.; 5,817 met.; gen. 880 kW hydro, 765,000 kWh; pur. 62,928,583 kWh; rev. $2,988,367. (1945)*

FLEMING, Box 466, 80728, Lester Harms, mayor, 146 met.; no gen.; pur. 1,990,400 kWh.

FORT COLLINS Light & Power Utility, 700 Wood St., Box 580, 80521, 303/221-0501, Bill D. Carnahan, gen. mgr.; 27,275 met.; no gen.; pur. 511,619,219 kWh; rev. $25,450,605. (1935)*

FORT MORGAN, City of, 710 E. Railroad Ave., Box 100, 80701, 303/867-3001, Glen W. Calvert, city supt.; 5,275 met.; no gen.; pur. 190,160,796 kWh; rev. $2,078,311 (1906)*

FOUNTAIN, City of, 116 S. Main St., 80817, 303/382-5604, Frank Bustamento, supt.; 7,356 met.; no gen.; pur. 75,630,007 kWh; rev. $2,936,506.

FREDERICK, Town of, Box 435, 80530, 303/833-2388, Edward J. Tagliente, mayor; 300 met.; no gen.; pur. 3,992,300 kWh; rev. $137,356.

GLENWOOD SPRINGS Elec. System, 601 6th St., 81601, 303/945-6672, 945-6835, Robert J. Nastan, elec. sys. mgr.; 4,194 met.; no gen.; pur. 60,530,400 kWh; rev. $3,813,847. (1953)*

GRANADA, Town of, 109 E. Goff St., Box 258, 81041, Thelma Schibblehut, town clerk; 200 met.; 303/734-5411.

GUNNISON, City of, Box 239, 81230, 303/641-2443, Dale Howard, city mgr.; 2,698 met no gen.; pur. 41,853,998 kWh; rev. $1,283,190. (1880s)*

HAXTUN Mun. Light & Power Dept., 145 S. Colorado Ave., Box 205, 80731, 303/774-6104, R. D. Orcutt, supt.; 585 met.; no gen.; pur. 100,193 kWh; rev. $216,000. (1918)

HOLLY, Town of, Box 458, 81047, 303/537-6622, Dorothy Cook, town clerk; 671 met.; no gen.; pur. 6,366,720 kWh; rev. $352,979. (1949)

HOLYOKE Light & Power, 207 W. Denver St., 80734, 303/854-2266, Les Lutze, city supt.; 1,065 met.; no gen.; pur. 15,200,242 kWh; rev. $438,000.

JULESBURG Mun. Power & Light, 222 E. First St., Box 508, 80737, 303/474-3344, Melvin Mikelson, town mgr.; 800 met.; gen. 4,900 kW eng., 85,000 kWh; pur. 416,966 kWh; rev. $611,134.

LA JUNTA Mun. Util., Box 630, 81050, 303/384-2546, Carme A. Sarlo, city mgr.; 3,696 met.; gen. 19,350 dual-fuel eng., 262,700 kWh; pur. 56,978,610 kWh; rev. $3,437,734. (1939)*

LAMAR, Utils. Bd. of, 100 N. Second St., 81052, 303/336-7456, Kevin G. Wailes, supt.; 5,219 met.; gen. 35,000 kW gas (steam turbine), 2,000 kW oil (eng.), 84,632,610 kWh; pur. 31,236,000 kWh; rev. $5,724,983. (1919)*

LAS ANIMAS Mun. Light & Power, Box 271, 81054, 303/456-1621, Dwain Parrack, supt.; 1,931 met.; gen. 620 kW oil, 5,000 kW dual-fuel (eng.), 35,100 kWh; pur. 21,323,000 kWh, rev. $1,010,962. (1941)*

LONGMONT, City of, Elec. Util., 1100 S. Sherman St., 80501, 303/776-6050, X359, David C. Plumb, deputy city mgr.; 18,491 met.; gen. 600 kW hydro, 4,364,230 kWh; pur. 261,725,914 kWh; rev. $13,230,951. (1911)*

LOVELAND, City of Elec. Dept., 446 N. Garfield, 80537, 303/667-6130, Dieter Wirtzfeld, dir.; 14,181 met.; no gen.; pur. 385,942,000 kWh; rev. $11,448,490. (1925)*

LYONS, Town of, 432 5th Ave., 80540, 303/823-6622, Ralph Leum, pub. wks. dir.; 500 met.; no gen.; pur. 170,449 kWh; rev. $292,215.

OAK CREEK, Town of, Box 128, 80467, 303/736-2422, John Yurich, town mgr.; 507 met.; no gen.; rev. $155,200.

SPRINGFIELD Mun. Util., Box 4, 81073, 303/523-4528, Tommy Lithe, supt.; 950 met.; gen. 2,495 kW dual-fuel eng.; pur. 8,000,000 kWh. (1949)

TRINIDAD Mun. Power & Light Dept., 135 N. Animas, Box 880, 81082, 303/846-9843; David Brunelli, supt.; 4,257 met.; gen. 11,250 kW coal (steam turbine), 6,275,000 kWh; pur. 27,960,000 kWh; rev. $2,490,430. (1948)*

WALSENBURG Utils., 525 S. Albert, 81089, 303/738-1240, Richard Abila, supt.; 2,079 met.; no gen.; pur. 16,725,480 kWh; rev. 1,230,341. (1952)

WRAY City of, 245 W. 4th, Box 35, 80758, 303/332-4431, Robert Snedeker, city mgr.; 1,249 met.; no gen.; pur. 16,704,000 kWh; rev. $677,717. (1903)*

YUMA City of, Light & Power, 221 S. Main St., 80759, 303/848-3878 or 2147, Paul Metcalf, city mgr.; 1,350 met.; gen. (standby) 1,350 kW oil-fired eng.; pur. 13,803,262 kWh; rev. $730,658. (1928)

CONNECTICUT

GROTON City of, Dept. of Util., 295 Meridian St., Box 820, 06340, 203/445-8571, William W. Clinton, dir. of utils.; 11,775 met.; no gen.; pur. 514,581,000 kWh; rev. $24,205,394. (1904)*

JEWETT CITY Elec. Light Plant, 29 Park Square, 06351, 203/376-2955, 376-2877, Joseph M. Dudek, supt.; 1,864 met.; no gen.; pur. 14,263,286 kWh; rev. $1,051,875. (1893)*

NORWALK THIRD TAXING DISTRICT, Elec. Dept., 2 Second St., E. Norwalk, 06855, 203/866-9271, William J. Lyons Jr., mgr.; 3,156 met.; no gen.; pur. 49,695,379 kWh; rev. $2,625,964. (1913)*

NORWICH Dept. of Pub. Util., 34 Shetucket St., 06360, 203/887-2555, Richard E. DesRoches, gen. mgr.; 16,321 met.; gen. 16,750 kW oil (combus. turbine), 3,000 kW hydro, 13,364,970 kWh; pur. 234,108,228 kWh; rev. $16,335,330. (1904)*

SOUTH NORWALK Elec. Works, State St., Box 400, 06856, 203/866-3366, Larry Rossi, gen. mgr.; 5,025 met.; gen. 15,280 kW oil, eng., 1,200,000 kWh; pur. 60,260,947 kWh; rev. $4,653,923. (1892)*

WALLINGFORD Elec. Div., Dept. of Pub. Utils., 100 John St., Box 190, 06492, 203/265-1593, Raymond F. Smith, dir. of utils.; 16,677 met.; gen. 22,500 kW oil, (steam turbine), 20,000 kWh; pur. 375,097,000 kWh; rev. $21,325,030. (1899)*

DELAWARE

CLAYTON Mun. Light & Power, 314 Main St., 19938, James H. Carson, Jr., council pres., 590 met.; pur. 4,570,000 kWh; rev. $217,272.

DOVER City of, Elec. Dept., Box 475, 19901, 302/736-7070, Thomas L. Darte, elec. dir.; 12,969 met.; gen. 140,000 kW oil (steam turbine), 500 kW oil (eng.), 552,513,900 kWh; pur. 101,016,000 kWh; rev. $36,764,843. (1902)*

LEWES Bd. of Pub. Works, Box 518, 19958, 302/645-6228, -6229, Ronald Donovan, gen. mgr.; 2,396 met.; pur. 37,848,000 kWh.; rev. $2,542,445. (1901)

MIDDLETOWN Town of, Town Hall, Box 227, 19709,

302/378-2711, Arthur Pennewill, councilman; 500 met.; no gen.; pur. 16,300,000 kWh; rev. $1,600,000.

MILFORD, City of, 201 S. Walnut St., 19963, 302/422-6616, Ralph A. Clark, city mgr.; 3,500 met.; no gen.; rev. $5,100,000. (1918)

NEWARK, City of, 220 Elkton Rd., Box 390, 19711, 302/366-7080, Peter Marshall, city mgr.; 7,610 met.; no gen.; pur. 172,509,250 kWh; rev. $13,652,532. (prior to 1914)*

NEW CASTLE Bd. of Water & Light Comm., 216 Chestnut St., Box 208, 19720, 302/328-2325, Edward J. Murphy, secy.-mgr.; 1,935 met., no gen.; sales 14,695,966 kWh; rev. $1,555,204. (1921)*

SEAFORD City of Elec. Dept., 302 E. King St. Box 671, 19973, 302/629-9173, Dolores F. Jones, city mgr.; 2,531 met.; gen. 7,302 kW diesel; pur. 49,860,000 kWh; rev. $3,561,337.

SMYRNA, Town of, 27 S. Market St., Box 307, 19977, 302/653-9231, Harry M. Odren, town mgr.; 1,984 met.; no gen.; pur. 31,027,200 kWh; rev. $2,603,801. (1893)

FLORIDA

ALACHUA, City of, Box 9, 32615, 904/462-1231, Richard Schlaf, city mgr.; 1,482 met.; no gen.; pur. 26,506,249 kWh; rev. $1,568,013. (1960)

BARTOW, City of, 250 N. Central Ave., 33830, 813/533-0911, James R. O'Connor, city mgr.; 8,320 met.; no gen.; pur. 180,479,000 kWh; rev. $11,515,304. (1903)

BLOUNTSTOWN Mun. Elec. Dept., 125 W. Central Ave., 32424, 904/674-5488, Ed Stacey, elec. dept. supvr.; 1,255 met.; no gen.; pur. 19 million kWh; rev. $1.5 million. (1903)

BUSHNELL Util. Dept., Box 115, 33513, 904/793-2591, Lelman Shaw, supt.; 672 met.; rev. $848,301. (1921)

CHATTAHOOCHEE, City of, City Hall, Box 188, 32324, 904/663-4046, Clyde Hopkins, supt.; 1,327 met.; no gen.; pur. 18 million kWh; rev. $1,995,064. (1915)*

CLEWISTON, City of, Box 698, 33440, 813/983-9191, C. F. Blair, city mgr.; 3,306 met.; no gen.; pur. 67,929,008 kWh; rev. $4,447,785. (1942)*

FORT MEADE, City of, Box 856, 33841, 813/285-8191, Robert Bullard, city mgr.; 2,335 met.; no gen.; pur. 31,886,000 kWh; rev. $2,084,856. (est. 1920s)

FORT PIERCE Utils. Authority, 206 S. 6th St., Box 3191, 33450, 305/464-5600, Ewell E. Menge, dir. util.; 21,086 met.; gen. 120,000 kW, 16,000 kW oil, 98,500 kW gas (steam turbine), 5,500 kW diesel, 200,079,000 kWh; pur. 365,387,000 kWh; rev. $28,776,157. (1911)*

GAINESVILLE REGIONAL UTILITIES, Box 490, Gainesville, 32602, 904/374-2910, Richard L. Hester, deputy city mgr. of util.; 45,044 met.; gen. 168,000 kW oil, 235,000 kW coal, 11,400 kW nuclear (steam turbine), 82,000 kW oil (combus. turbine), 1,972,000,300 kWh; pur. 6,249,000 kWh; rev. $56,179,883. (1912)*

GREEN COVE SPRINGS, City of, 229 Walnut St., 32043, 904/284-5621; William Vermilling, city mgr.; 2,036 met.; no gen.; pur. 53,381,595 kWh; rev. $3,954,840. (1907)

HAVANA, Town of, Power & Light, 711 N. Main St., Box 1068, 32333, 904/539-6493, C. G. Trippe, city mgr.; 1,128 met.; no gen.; pur. 13,185,600 kWh; rev. $918,081. (1926)

HOMESTEAD, City of, Power Plant, 790 N. Homestead Blvd., 33030, 305/247-1801, Warren Hinchee, dir. of utils.; 12,635 met.; gen. 20,180 kW oil, 42,300 kW dual-fuel (eng.), 138,868,700 kWh; pur. 99,732,000 kWh; rev. $14,665,274. (1926)*

JACKSONVILLE Elec. Authority, 233 W. Duval St., 32201, 904/633-4730, Royce Lyles, mg. dir.; 232,092 met.; gen. 1,553,000 kW oil (steam turbine), 436,000 kW oil (combus. turbine), 4,351,152,982 kWh; pur. 1,986,226,000 kWh; rev. $388,199,000. (1895)*

JACKSONVILLE BEACH Dept. of Elec. Utils., 11 N. Third St., Box 51389, 32250, 904/249-2381, Keith Roberts, dir. elec. util.; 13,428 met.; no gen.; pur. 229.5 million kWh; rev. $16,554,229. (1908)*

KEY WEST, Utility Bd. of the City, 1001 James St., 33040, 305/294-5272, Robert R. Padron, mgr.; 17,902 met.; gen. 116,500 kW, 82,000 kW oil (steam turbine), 22,000 kW oil (combus. turbine), 12,500 kW oil (eng.), 385,996,368 kWh; pur. none; rev. $33,263,059. (1943)*

KISSIMMEE, Utils., 101 N. Church St., Box 1608, 32741, 305/847-2821, James Welsh, util. dir.; 15,756 met.; gen. 31,050 kW, 5,700 kW nuclear (steam turbine), 25,350 kW dual-fuel (eng.), 136,764,000 kWh; pur. 160,568,000 kWh; rev. $19,123,440. (1900)*

LAKELAND City of, Dept. of Elec. & Water Utils., 1000 E. Parker St., 33801, 813/687-3636, R. G. Siegel, mg. dir., 64,719 met.; gen. 567,700 kW, 310,600 kW oil, 200,300 kW coal (steam turbine), 51,400 kW oil (combus. turbine), 5,400 kW oil (eng.), 1,280,000,000 kWh; rev. $80,038,040. (1904)*

LAKE WORTH Utils. Auth., 114 College St., 33460, 305/586-1666, Larry Robbins, utils. dir., 21,984 met.; gen. 81,000 kW steam, 30,000 kW comb. turbine, 30,000 kW comb. cycle, 10,000 kW eng.; 290,600,000 kWh; sales 281,460,000 kWh; rev. $18,599,481. (1916)

LE[illegible]BURG, City of, Box 630, 32748, 904/787-4313, J. M. Tardugno, util. supt.; 12,866 met.; gen. 6,800 kW nuclear (steam turbine), 60,025,900 kWh; pur. 187,883,104 kWh; rev. $16,884,456. (1926)*

MOORE HAVEN Mun. Water & Light Dept., Box 399, 33471, 813/946-0711, Jack Smith, elec. supt.; 800 met.; no gen.; rev. $534,596. (1924?)

MOUNT DORA City of, Box 176, 32757, 904/383-4221, Arthur Womble, supt. of utils.; 3,953 met.; no gen.; pur. 50,822,000 kWh; rev. $3,780,475. (1922)

NEWBERRY Bd. of Public Works, Box 368, 32669, 904/472-2161, John W. Caldwell, util. dir.; 680 met.; no gen.; rev. $805,413. (1910)

NEW SMYRNA BEACH Util. Comm., 120 Sams Ave., 32069, 904/427-1361, R. Ronald Hagen, util. dir.; 11,500 met.; gen. 27,444 kW, 7,500 kW gas, 4,994 kW nuclear, 14,040 kW oil-fired, 910 kW dual-fuel, 140,874,981 kWh; pur. 125,150,000 kWh; rev. $9,810,442 (1922).*

OCALA Utils., Box 1270, 32678, 904/629-8431, Dean G. Shaw, dir. of elec. util.; 29,404 met.; gen. 11,146 kW nuclear (steam turbine), 96,482,112 kWh; pur. 464,368,048 kWh; rev. $40,116,833. (1893)*

ORLANDO Utils. Comm. Box 3193, 32802, 305/423-9100, Harry C. Luff, gen. mgr.; 87,729 met.; gen. 799,000 kW; rev. $155,617,615. (1923)

QUINCY, City of, Drawer 941, 32351, 904/627-7681, William F. Johnson, city mgr., Otto Roberts, dir. of utils.; 4,092 met.; no gen.; pur. 105,124,000 kWh; rev. $4,649,690. (1904)

ST. CLOUD Pub. Utils., 1300 Ninth St., 32769, 305/892-2161, Roxy Howse, dir. pub. works; 8,104 met.; gen. 27,000 kW dual-fuel (eng.), 85,858,000 kWh; pur. 46,469,333 kWh; rev. $7,916,481. (1916)*

SEBRING Utils. Comm., Box 971, 33870, 813/385-0191, Donald L. Hornak, gen. mgr.; 9,200 met.; gen. 28,760 kW, 12,500 kW gas, 3,760 kW nuclear, 12,500 kW oil-fired, 79.4 million kWh; pur. 47.1 million kWh; rev. $8,197,724. (1923)*

STARKE Light & Water Plant, 209 N. Thompson St., Drawer C, 32091, 904/964-5027, Merrell Dees, utils. dir.; 2,157 met.; pur. none; rev. $542,703. (1890)

TALLAHASSEE, City of, Elec. Dept., 2602 Jackson Bluff Rd., 32304, 904/576-1171, B. W. Wait III; 57,797 met.; gen. 549,442 kW, 464,250 kW gas & oil, 73,320 kW gas turbine, 11,872 kW nuclear, sales 1,539,000,000 kWh; rev. $82,501,151. (1902)*

VERO BEACH, City of, Box 1389, 32961, 305/567-5151, Ext. 247, John V. Little, city mgr./util. dir.; 20,119 met.; gen. 130,378 kW, 117,000 kW oil or gas (steam turbine), 13,378 kW oil (eng.), 314,013,000 kWh; pur. 195,676,000 kWh; rev. $28,446,805. (1919)

WAUCHULA Mun. Light & Water Dept., Box 818, 33873, 813/773-3131, Thomas M. Priest, supt., pub. works; 2,281 met.; gen. 7.2 thousand kW oil-fired eng., 2,368,700 kWh; pur. 44,249,000 kWh; rev. $2,713,427. (1924)*

WILLISTON Mun. Elec. Dept., Box 160, 32696, 904/528-3060, Donald J. Tanner, util. dir.; 1,200 met.; no gen.; rev. $995,000.

GEORGIA

ACWORTH City of, 4375 Sen, Russell Sq., 30101, 404/974-3112, Joseph Griffis, supt.; 2,300 met.; no gen.; rev. $1,368,000.

ADEL Lighting Dept., 112 N. Parish Ave., 31620, Harwell Sutton mgr.; no gen.; pur. 66 million kWh.*

ALBANY Water, Gas & Light Comm., Box 1788, 31707, 912/883-5330, U. W. Rodemann, gen. mgr.; 32,441 met.; no gen.; pur. 776,572,582 kWh; rev. $34,320,914. (1900)*

BARNESVILLE, City of, Light Dept., 109 Forsyth St., Box 187, 30204, 404/358-0181, Ralph S. Barron. city supt.; 2,202 met.; no

gen.; pur. 32,460,653 kWh; rev. $1,637,467. (1910)*

BLAKELY, City of, Box 350, 31723, 912/723-3677, George A. Loyed, city admin.; 2,365 met.; no gen.; pur. 52,287,407 kWh; rev. $2,501,128. (1929)*

BRINSON, City of, City Hall, 31725, 912/246-5720, Ed Mitchell, mayor; no gen.; pur. 1,449,196 kWh; rev. $50,000.*

BUFORD, City of, 30 Garnett St., 30518, 404/945-6761, Earley Biffle, city mgr.; 2,031 met.; no gen.; 26,832,778 kWh; rev. $994,729.*

CAIRO, City of, Box 29, 31728, John W. Walker, city mgr.; 4,115 met.; no gen.; pur. 88,567,202 kWh; rev. $3,120,993. (1902)*

CALHOUN, City of, Box 924, 30701, 404/629-2276, Jack H. Bell, elec. supt.; 2,514 met.; no gen.; pur. 125,471,562 kWh; rev. $4,469,468. (1900)*

CAMILLA, City of, Box 328, 31730, 912/336-5636, Clarence H. Bryant, city mgr.; 2,060 met.; no gen.; pur. 57,774,056 kWh; rev. $2,495,569. (1925)*

CARTERSVILLE Elec. System, 4 Cook St., Box 529, 30120, 404/382-2328, Ralph L. Oglesby, elec. supt.; 4,459 met.; no gen.; pur. 238,025,788 kWh; rev. $9,452,266. (1905)*

CHICKAMAUGA Elec. System, Box 68, 30707, 404/375-3177, Mike McDonald, mgr.; 775 met.; no gen.; sales 239,801,354 kWh; rev. $8,023,401. (1963)*

COLLEGE PARK, City of, 1886 W. Harvard Ave., 30337, 404/761-5273, Robert W. Dudley, elec. dept. dir.; 10,000 met.; no gen.; pur. 202.1 million kWh; rev. $6,190,890.*

COMMERCE, City of, Box 348, 30529, 404/335-3164, Thomas Beck, supt.; 1,967 met.; no gen.; pur. 36,101,776 kWh; rev. $1,446,207.*

COVINGTON, City of, Elec. Dept., 2111 Conyers St., Box 1527, 30209, 404/786-5324, Frank B. Turner, city mgr.; 5,967 met.; no gen.; pur. 110 million kWh; rev. $5,858,761. (est. 1900)*

CRISP COUNTY POWER COMMISSION, 201 S. 7th St., Box 1218, Cordele, 31015-1218, 912/273-3811, Frank L. Olson, mgr.; 9,146 met.; gen. 30,500 kW, 12,500 kW coal, 5,000 kW gas turbine, 13,000 kW hydro, 58,170,600 kWh; pur. 143,054,109 kWh; rev. $7,680,222. (1927)*

DALTON Utilities, Box 869, 30720, 404/278-1313, DeForrest Parrott, gen. mgr.; 9,537 met.; pur. 602 million kWh; rev. $21,630,921. (1890)

DOERUN Water & Light Plant, 31744, 912/782-5444, J. B. Walters supt.; 470 met.; no gen.; pur. 5.4 million kWh. (1911)*

DOUGLAS, City of, Box 470, 31533, 912/384-3302, Joe Glen Solomon, supt.; 4,606 met.; no gen.; pur. 124,053,643 kWh; rev. $5,669,434. (1899)*

EAST POINT, City of, Elec. Utils., 2777 East Point St., 30344, 404/765-1026-27, Marshall J. Collins, dir.; 15,996 met.; no gen.; pur. 326,688,255 kWh; rev. $12,368,735.*

ELBERTON, City of, Elec. Util., 234 N. McIntosh St., 30635, 404/283-2575, J. N. Jackson, supt.; 4,196 met.; no gen.; pur. 73.7 million kWh; rev. $2,798,700. (1895)*

ELLAVILLE Mun. Elec. Light Plant, 31806, Virginia R. Whaley, city clerk; 705 met.; no gen.; pur. 9 million kWh; rev. $241,657.*

FAIRBURN Electrical Dept., 56 Malone St., 30213, 404/964-2244, Alex Howell Sr., city mgr.; 1,538 met.; no gen.; pur. 24,087,398 kWh; rev. $1,098,886.*

FITZGERALD Water, Light & Bond Comm., Drawer F, 31750, 912/423-2016, James H. Smith, supt.; 5,170 met.; no gen.; pur. 103,422,312 kWh; rev. $4,516,066. (1907)*

FORSYTH, City of, Box 1447, 31029, 912/994-5649, Guy F. Walker, supt.; 1700 met.; no gen.; pur. 38,280,448 kWh; rev. $2,017,126.*

FORT VALLEY, City of, Utils. Comm., Box 529, 31030, 912/825-7701, Fred J. Sankey, dir.; 4,178 met.; no gen.; pur. 78,710,900 kWh; rev. $2,895,384. (1905)*

GRANTVILLE, City of, Box 126, 30220, 404/583-2289, Paul F. Musick Jr., mayor; 440 met.; no gen.; pur. 4,007,389 kWh; rev. $179,931.*

GRIFFIN, City of, Box 797, 30224, 404/229-1506, Clifford Hutson, dir.; 11,431 met.; no gen.; pur. 196,033,027 kWh; rev. $7,437,503. (1895)*

HAMPTON Elec. Dept., 30228, 404/946-4306, Martha Barnette, city clerk; 740 met.; no gen.; pur. 40,000 kWh; rev. $450,000.

HOGANSVILLE Mun. Light Plant, 103 Main St., 30230, David Street, supt.; no gen.; pur. 13.7 million kWh.*

JACKSON, City of, Box 3838, 30233, 404/775-7535, S. V. Lunsford, elec. dept. supt.; 1,344 met.; no gen.; pur. 23,918,126 kWh; $1,016,857. (1900)*

LA FAYETTE Mun. Elec. Dept., Box 89, 30728, 404/638-1082; Paul Van Dusen, supt.; Grady McCalmon, city mgr.; 3,313 met.; no gen.; pur. 74 million kWh; rev. $2,653,732. (1925)*

LA GRANGE, City of, Box 430, 200 Ridley Ave., 30241, 404/884-7386, C. W. Hughes, dir. of utils.; 10,299 met.; no gen.; pur. 263,523,940 kWh; rev. $10,326,534. (1900)*

LAWRENCEVILLE, City of, 405 S. Clayton St., 30245, 404/963-2414, Don Martin, mgr.; 3,890 met.; no gen.; pur. 89,581,141 kWh; rev. $2,984,648. (1920)*

MANSFIELD, Town of, Box 35, 30255, 404/786-7235, Wayne Blackwell, chrmn. of elec. dept.; 205 met.; no gen.; pur. 2,441,000 kWh; rev. $101,856. (1910)*

MARIETTA Board of Lights & Water, 205 Lawrence St., 30060, 404/429-4230, Keith Bass, supt. elec. engrg.; 29,721 met.; no gen.; pur. 504,743,173 kWh; rev. $29,491,318. (1906)*

MONROE Water, Light & Gas Comm., 215 N. Broad St., Box 725, 30655, 404/267-5756, John T. Briscoe Jr., supt.; 3,917 met.; no gen.; pur. 75,015,512 kWh; rev. $2,983,914. (1906)*

MONTICELLO, City of, 115 E. Greene St., 31064, 404/468-6062, Henry T. Hooper, mayor; 1,117 met.; no gen.; pur. 15,781,412 kWh; rev. $98,013. (1905)*

MOULTRIE, City of, Box 580, 31768, 912/985-1974, Bob Roberson, city mgr.; 6,410 met.; no gen.; pur. 144,258,432 kWh; rev. $5,864,731. (1898)*

NEWNAN Water, Sewerage & Light Comm., 70 Sewell Rd., 30263, 404/253-5516, Carl G. Miller, gen. mgr.; 5,054 met.; no gen.; pur. 75,823,374 kWh; rev. $4,075,111. (1904)*

NORCROSS, City of, 30071, Doug Wood, elec. supt.; no gen.; pur. 23.1 million kWh.*

OXFORD Water & Light System, 810 Wahtcoat St., 30267, 404/786-7004, E.V. Moss, supt.; 600 met., no gen.

PALMETTO City, 549 Main St., 30268; 404/463-3377, Charles Montgomery, city admin.; 750 met.; no gen.; pur. 277,067 kWh; rev. $521,974.*

QUITMAN Elec. Dept., 31643, J. P. Griffin, supt.; no gen.; pur. 33.8 million kWh.*

SANDERSVILLE, City of, Elec. Dept., Box 71, 912/552-2525, C. C. Wright, supt.; 2,000 met.; no gen.; pur. 40 million kWh.*

SYLVANIA, City of, Box 555, 30467, 912/564-7411, E. K. Overstreet, city mgr.; 2,056 met.; no gen.; sales 92,977,000 kWh; rev. $3,331,382. (1910)*

SYLVESTER, City of, Box 368, 31791, 912/776-3346, Charles Jones, supt.; 2,282 met.; no gen.; pur. 48,000,000 kWh; rev. $2,519,981. (1903)*

THOMASTON, City of, Elec. Dept., Box 672, 30286, 404/647-4242, Frank Spraggins, elec. supt.; 4,163 met.; no gen.; pur. 60,794,000 kWh; rev. $1,731,378.*

THOMASVILLE Water & Light Dept., 411 W. Jackson St., Box 1397, 31799, 912/226-3518, 12,797 met.; no gen.; pur. 299,607,579 kWh; rev. $13,372,516. (1906)*

WASHINGTON, City of, Box 9, 30673, 404/678-3277, E. B. Pope, mayor; 2,274 met.; no gen.; pur. 68,885,150 kWh; rev. $2,833,057. (1897)*

WEST POINT, City of, Box 487, 31833, 404/645-2226, John F. Meadors, admin.; 1,584 met.; no gen.; pur. 30,157,858 kWh; rev. $1,327,907. (1900)*

WHIGHAM Elec. Dept., Box 71, 31797, Cecil Gibbs Jr., supt.; 180 met.; no gen.; pur. 4 million kWh.*

IDAHO

ALBION Light & Water Plant, Box 163, 83311, 208/673-5331, H.W. Chris Cagle, mayor; 155 met.; no gen.; pur. 3 million kWh; rev. $30,000. (1916)

BONNERS FERRY Light and Water Dept., Box 149, 83805, 1-208/267-3105, Richard Cook, city admin.; 1,912 met.; gen. 6,390 kW, 2,450 kW hydro, 2,440 kW eng., 21,000,000 kWh; pur. 40,000,000 kWh; rev. $1,400,000. (1922)*

BURLEY, City of, 2020 Park Ave., 83318, 208/678-2538, Donald R. Hill, utils. dir., 4,425 met.; no gen.; sales 105,759,319 kWh; rev. $2,157,978.*

DECLO City of, Box 141, 83323, 208/654-6391, Nuelda Matthews,

clerk, 104 met.; no gen.; pur. 2,798,719 kWh; rev. $24,561 (1910)

DUBOIS Elec. System, Box 27, 83423, 208/374-5241, Charles R. Walstrom; 215 met.; no gen.; pur. 2,500,000 kWh; rev. $118,208. (1919)

HEYBURN, City of, Box 147, 83336, 208/678-8158, Larry Burbank, supt.; 1,023 met.; no gen.; sales 65,173,966 kWh; rev. $912,851. (1910)

IDAHO FALLS, City of, Box 220, 83402-0220, 208/529-1430, Steve Harrison, mgr.; elec. div.; 17,432 met.; no gen., sales 427,414,289 kWh; rev. $8,170,519. (1900)*

MINIDOKA, City of, 83343, Deon Fassett, clerk; 55 met.; no gen.; pur. 1 million kWh. (1924)

PLUMMER Elec. Dept., 83851, 208/686-1422, W. T. Neibuhr, mgr.; 550 met.; no gen.; pur. 13 million kWh; rev. $258,000. (1916)

RUPERT, City of, Elec. Dept., Box 426, Civic Bldg., 83350, 208/436-9608, Elmer V. Schenk, mgr.; 2,600 met.; no gen.; pur. 75,000,000 kWh; rev. $1,100,000. (1919)

SODA SPRINGS Mun. Power & Light, 9 W. Second St., 83276, 208/547-2151, John F. Hendrickson, city admin.; 1,650 met.; gen. 535 kW hydro, 2,326,600 kWh; pur. 22,120,000 kWh; rev. $1,244,848. (1912)

WEISER, City of, Electric, 55 W. Idaho St., 83672, 208/549-1965, Keith Herrick, supt.; 2,500 met.; no gen.; pur. 36 million kWh; rev. $535,267. (1908)

WORLEY, City of, Box 218, 83876, 208/686-1258, Sally A. Holt, city clerk; 110 met.; no gen.

ILLINOIS

ALBANY Elec. Dept., Box 356, 61230, 309/887-4901, Gary Gooch, supt.; 400 met.; no gen.; pur. 3,848,635 kWh; rev. $148,959.

ALLENDALE Mun. Util., Box 85, 62410, 618/299-3181, Robert K. Kight, supt.; 272 met.; no gen.; pur. 2,603,200 kWh; rev. $143,242. (1949)*

ALTAMONT Mun. Elec. Light Plant, 601 W. Madison Ave., 62411, 618/483-5108, Dallas Fairley, supt.; 870 met.; gen. 3,800 kW eng.; rev. $246,616.

BATAVIA, City of, 101 N. Island Ave., 60510, 312/879-1424, Mario Perez, supt. of elec.; 4,600 met.; no gen.; pur. 94,000,000 kWh; rev. $6,670,000. (1898)

BETHANY Mun. Elec., Box 352, 61914, 217/665-3351, Frank Roby Jr., util. mgr.; 640 met.; no gen.; pur. 5,914,209 kWh; rev. $374,201. (1914)*

BREESE Water & Light Dept., 800 N. First St., 62230, 618/526-7151, Wilfrid C. Hilmes, mayor; 1,442 met.; gen. 2,000 kW oil (steam turbine), 900 kW oil, 6,000 kW dual-fuel (eng.), 198,520 kWh; pur. 21,014,400 kWh; rev. $1,151,978. (1906)*

BUSHNELL Mun. Utility, 148 E. Hail St., 61422, 309/772-2029, Bert L. Sammons, mgr.; 1,278 met.; gen. 23,180 kW oil-fired, 96,000 kW gas-fired, pur. 22,574,800 kWh; rev. $1,253,509. (1941)*

CAIRO Pub. Util. Comm., 1100 Commercial Ave., 62914, 618/734-3200, Karl H. Klein, mgr.; 2,704 met.; no gen.; sales 75,524,946 kWh; rev. $3,360,239. (1947)*

CARLYLE Mun. Util., 850 Franklin, 62231, 618/594-3321, Edward H. Kleber, supt. of utils.; 1,529 met.; gen. 9,250 kW dual-fuel (eng.), 159,000 kWh; pur. 22,563,000 kWh; rev. $1,284,849. (1901)*

CARMI Light & Water, Box 65, 62821, 618/382-8118, J. B. Brown, mayor; 3,800 met.; gen. 1,670 kW oil-fired, 12,730 kW dual-fuel, 18,336,100 kWh; pur. 916,187 kWh; rev. $2,283,716. (1925)

CASEY, City of, Box 425, 108 E. Main, 62420, 217/932-4885, Ray Mitchell, supt. of utils.; 1,780 met.; no gen.; pur. 24,048,000 kWh; rev. $1,395,706.

CHATHAM, Village of, 117 E. Mulberry, 62629, 217/483-2451, Tony Moore, supt.; 2,000 met.; no gen.; pur. 34,330,800 kWh; rev. $1,011,398. (1942)

FAIRFIELD Mun. Light Plant, N.W. 6th St., 62837, 618/842-4821, Claude Trotter, supt.; 3,190 met.; gen. 2,700 kW oil-fired, 4,800 kW dual-fuel (eng.), 130,000 kWh; pur. 57,453,506 kWh. (1898)

FARMER CITY, Mun. Power Plant, East Allen St., 61842, 309/928-6421, Harold Miller, supt.; 1,197 met.; gen. 2,430 kW oil, 5,050 dual-fuel eng.; rev. $966,539. (1895)*

FLORA Mun. Light Plant, 62839, Box 249, 618/662-5131, Jean Hall, city clerk, 3,122 met.

FREEBURG Mun. Light Plant, 101 S. Bellville St., 62243, 618/539-3112, Frank Lakatos, supt.; 1,450 met.; pur. 17,000,000 kWh (est); rev. $1,300,000 (est).

GENESEO Mun. Elec. Light & Power Plant, 433 E. North St., 61254, 309/944-2617, Owen Dean, supt.; 3,047 met.; gen. 19,600 kW dual-fuel (eng.), 44,186,000 kWh; pur. 26,753,000 kWh; rev. $2,704,345. (1933)*

GENEVA Mun. Elec. System, 2 W. State St., 60134, 312/232-1503, Reginald Fellhauer, dir.; 4,306 met.; no gen.; pur. 102.6 million kWh; rev. $5,049,000. (1894)*

GREENUP Light & Power Dept., 62428, John D. Carr, supt.; 806 met.; no gen.; pur. 5.2 million kWh; rev. $131,925. (1954)

HIGHLAND, City of, Elec. Dept., 1115 Broadway, 62249, 618/654-7511, D. G. Williams, city mgr.; 4,000 met.; gen. 12,000 kW dual-fuel; sales 85,800,000 kWh; rev. $4,250,000. (1899)*

LADD Electric Light Dept., 126 N. Main St., 61329, 815/894-2351, Clarence Foster, supt.; 550 met.; no gen.; pur. 3.5 million kWh

MARSHALL, City of, Box 298, 62441, 217/826-8386, George Smith, supt.; 2,051 met.; no gen.; sales 24,665,818 kWh; rev. $1,503,897.

MASCOUTAH Power & Light Dept., 40 W. Union, 62258, 618/566-2965, D. L. Sitton, city mgr.; 2,077 met.; gen. 10,102 kW, 3,500 kW coal, 2,248 kW oil-fired, 4,354 kW dual-fuel, 778,000 kWh; pur. 26.4 million kWh; rev. $1,422,365.

McLEANSBORO Mun. Light & Water Plant, 102 W. Main, 62859, William Campbell, supt.; 1,700 met.; gen. 8,625 kW dual-fuel eng., 503,600 kWh; pur. 16,335,740 kWh. (1897)

METROPOLIS, City of, 106 W. Fifth St., 62960, 618/524-4016 or 4212, Jack Rushing, light supt.; 3,300 met.; no gen.

NAPERVILLE Elec. Dept., 175 W. Jackson Ave., 60566-1002, 312/420-6181, Victor Marma, dir. elec. dept.; 16,938 met.; no gen.; pur. 333,280,457 kW rev. $23,919,996. (1898)*

NEWTON Light & Water Works, 108 N. Van Buren, 62448, 618/783-8451, Bob Reynolds, supt.; 1,565 met.; no gen.; pur. 24,100,000 kWh; rev. $1,279,228. (1925)

OGLESBY, City of, 128 W. Walnut St., 61348, 815/883-8621, Joe Popurella, util. supt.; 1,693 met.; no gen.; sales 14,800,899 kWh; rev. $811,377. (1910)*

PERU Light Dept., City Hall, 1415 Water St., 61354, 815/223-0044, Donald Baker, mayor; 4,300 met.; gen. 33,000 kW, 15,250 kW steam, 11,500 kW gas turbine, 6,250 kW eng., 58 million kWh; pur. none; rev. $2,700,000. (1892)*

PRINCETON Mun. Utils., 2 S. Main St., 61356, 815/872-5551, Steve Finn, mgr.; 4,121 met.; gen. 38,480 kW dual-fuel eng., 31,370,000 kWh; pur. 35,000,000 kWh; rev. $3,354,000. (1900)*

RANTOUL, Village of, 200 W. Grove St., 61866, 217/892-2178, Glenn E. Tadlock, supt.; 5,076 met.; 16,832 kW dual-fuel, 1.5 million kWh; pur. 69.6 million kWh; rev. $3,725,876. (1898)*

RED BUD, City of, Utils., 525 Power St., 62278, 618/282-3339, Ronald Burgdorf and LeRoy Bievenue, co-supts., 1,329 met.; gen. 10,312 kW, 1,556 kW oil-fired eng., 8,756 kW dual-fuel eng., 285,900 kWh; pur. 24,474,000 kWh; rev. $1,297,307. (1904)

RIVERTON, Village of, 313 E. Jefferson St., 62561, 217/629-9122, Michael Brewer, supt.; 1,179 met.; no gen.; pur. 12,657,600 kWh; rev. $799,454.

ROCHELLE Mun. Utils., 120 N. Seventh St., 61068, 815/562-4155, Theodore W. Volding, gen. supt.; 5,563 met.; gen. 11,500 kW coal (steam turbine), 3,700 kW oil, 15,700 kW (eng.), 59,352,200 kWh; pur. 56,330,400 kWh; rev. $6,225,809. (1893)*

ROCK FALLS, Elec. Dept., 1007 7th Ave., 61071, 815/625-0949, Robert O'Donnell, dir.; 5,120 met.; no gen.; pur. 58,283,628 kWh; rev. $4,515,850. (1895)*

ROODHOUSE Mun. Power & Light, 119 W. Palm, 62082, 217/589-4635, Jim Holder, mayor; 895 met.; no gen.; pur. 89,310,000 kWh; rev. $541,007.

ST. CHARLES, Elec. Util., 2 E. Main St., 60174, 312/377-4407, Patrick J. Boyle, dir. elec. util.; 8,113 met.; no gen.; pur. 220,000,000 kWh; rev. $11,627,661. (1892)*

SPRINGFIELD City Water, Light & Power, Municipal Bldg., 7th & Monroe Sts., 62757, 217/789-2000, Paul Bonansinga, comm. pub. property; 54,998 met.; gen. 443,000 kW coal (steam turbine), 41,100 kW

oil (combus. turbine), 1,235,473,073 kWh; pur. 64,997,000 kWh; rev. $67,609,150. (1906)*

SULLIVAN, City of, Mun. Utils., 2 W. Harrison St., 61951, 217/728-7622, Bill Harris, line supt.; 2,258 met.; gen. 15,475 kW dual-fuel (eng.), 34,618,700 kWh; pur. 1,029,568 kWh; rev. $2,007,705. (1927)*

WATERLOO Mun. Light & Power, 104 W. Fourth St., 62298, 618/939-8661, Jerry Gum, mayor; 2,075 met.; gen. 4,598 kW oil, 5,850 kW dual-fuel (eng.), 97,600 kWh; pur. 28,210,000 kWh; rev. 1,501,665. (1899)

WINNETKA Elec. Plant, 510 Green Bay Rd., 60091, 312/446-2500, Gary L. Zimmerman, supt.; 5,026 met.; gen. 12,500 kW coal, 11,000 kW gas (steam turbine), 4,800 kW oil (eng.), 49,109,536 kWh; pur. 25,663,000 kWh; rev. $5,736,278. (1900)*

INDIANA

ADVANCE Power & Light, 112 N. Main St., 46102, 317/676-6511, Ralph Caldwell, supt.; 254 met.; no gen.; pur. 3,244,000 kWh; rev. $139,821. (1914)

ANDERSON Mun. Light & Power, 550 Baxter Rd., 46011, 317/646-5741, Charles J. Myers, supt.; 33,596 met.; no gen.; pur. 513,446,000 kWh; rev. $21,214,894. (1897)*

ARGOS Mun. Electric, 119 W. Walnut St., 46501, 219/892-5717, Wilmer Harley, supt.; 1,548 met.; no gen.; pur. 12,212,990 kWh; rev. $733,625.

AUBURN Elec. Dept., Cedar & Ninth Sts., 46706, 219/925-0365, Clyde James, elec. supt.; 5,955 met.; no gen.; pur. 157,716,000 kWh; rev. $6,285,959. (1900)

AVILLA Elec. Dept., 117-21 S. Main St., 46710, 219/897-3651, Paul Bolinger, supt.; 398 met.; no gen.; pur. 2.5 million kWh.

BAINBRIDGE, Town of Mun. Elec. System, Box 343, 46105, 317/522-6238, James Nelson, supt.; 327 met.; no gen.; pur. 3,415,200 kWh; rev. $133,972. (1915)

BARGERSVILLE Power & Light, Box 420, 46106, 317/422-5115, Joe M. Harrod, supt.; 1,600 met.; no gen.; pur. 21,626,400 kWh; rev. $884,448. (1921)

BLUFFTON, City of, Utils., 128 E. Market St., 46714, 219/824-2500, Edward C. Davis, supt.; 4,490 met.; gen. 7,000 kW dual-fuel (eng.), 4,479,800 kWh; pur. 94,237,600 kWh; rev. $3,936,700. (1889)

BOONEVILLE Mun. Elec. Plant, 113 S. Second St., 47601, 812/897-0140, Charles Davis, supt.; 1,700 met.; no gen.; rev. $484,277.

BREMEN Elec. Light & Power Co., 123 S. Center St., 46506, 219/546-4324, Dudley A. Keyser, dir. of oper.; 1,733 met.; no gen.; pur. 40,127,222 kWh; rev. $2,019,229. (1895)*

BROOKLYN Mun. Util., 46111, 317/831-3343, Dan Brenton, supt.; 360 met.; no gen; rev. $142,925

BROOKSTON Mun. Elec. Co., 205 E. 3rd St., Box 187, 47923, 317/563-3171, Charles L. Fountain, supt.; 774 met.; no gen.; pur. 10,720,800 kWh; rev. $439,416. (1916)

CANNELTON Utils., 610 Washington St., 47520, 812/547-7919, Steve Gaynor, gen. mgr.; 1,048 met.; no gen.; pur. 15,222,600 kWh; rev. $645,000.

CENTERVILLE Mun. Elec. Light & Power Dept., Box 307, 47330, 317/855-2191, James Bowen, supt.; 1,000 met.; no gen.; pur. 12 million kWh.

CHALMERS Mun. Elec. Dept., 47929, 219/984-5494, Ralph Nevitt, town bd. pres.; 303 met.; no gen.; pur. 3.2 million kWh, rev. $182,361.

COATESVILLE Mun. Light & Power Dept., Box 143, 46121, 317/386-7490, James Rollings, supt.; 268 met.; no gen.; pur. 3,279,600 kWh; rev. $122,223. (1912)

COLUMBIA CITY Mun. Elec. Dept., City Hall, S. Chauncey St., 46725, 219/244-5141, Gene Sheets, foreman; 3,531 met.; no gen.; pur. 69,252,000 kWh; rev. $2,658,602.

COVINGTON Elec. Dept., 413 Washington St., 47932, 317/793-2421, Gene Hulbert, supt.; 1,411 met.; no gen.; pur. 21 million kWh; rev. $845,755. (1913)

CRAWFORDSVILLE Electric Light & Power, 300 E. Pike St., 47933, 317/362-1900, Roy E. Kaser, mgr.; 8,159 met.; gen. 24,150 kW coal, 80,911,900 kWh; pur. 145,360,200 kWh; rev. $9,149,025. (1890)*

DARLINGTON Light & Power Co., 104 S. Franklin St., 47940-0125, 317/794-4496, Wesley D. Tribbett, supt.; 564 met.; no gen.; pur. 7,500,000 kWh; rev. $372,180. (1919)

DUBLIN Mun. Elec., Box 145, 47335, 317/478-4878, Monica V. Davis, clerk-treas.; 453 met.; no gen.; sales 4,080,000 kWh; rev. $19,076. (1920)

DUNREITH Elec. Light Dept., 47337, 317/987-7474, Shelby Linville, clerk-treas.; 200 met.; no gen.; rev. $51,000.

EDINBURGH Mun. Utils., 107 S. Holland, 46124, 812/526-6333, Richard Galbreath, supt.; 2,150 met.; no gen.; pur. 56,409,600 kWh; rev. $1,747,682. (1898)*

ETNA GREEN Elec. Light Dept., 46524, 219/387-3835, William Price, supt.; 200 met.; no gen.

FERDINAND Mun. Elec. Dept., W. Fifth St., Box 7, 47532, 812/367-1011, James R. Meyer, supt.; 647 met.; no gen.; pur. 12,858,000 kWh; rev. $447,954. (1922)

FLORA Elec. Util., 27 W. Main, 46929, 219/967-4844, Charles Everett, util. mgr.; 1,200 met.; no gen.; pur. 20,894,240 kWh; rev. $811,346. (1946)

FRANKFORT City Light & Power, 16 N. Main St., Box 578, 46041, 317/659-3362, John F. Shelburne, supt.; 8,350 met.; pur. 170 million kWh; rev. $5,846,902. (1902)*

FRANKTON Elec. Util., Box 286, 46044, 317/754-7285, Russell D. Swaim Jr., supt.; 1,012 met.; no gen.; pur. 14,349,600 kWh; rev. $3,414,059. (1900)

GARRETT Mun. Utils., S. Randolph St., 46738, 219/357-4400, William Rex Frain, supt.; 2,417 met.; no gen.; pur. 39,960,000 kWh; rev. $1,812,120. (1896)

GAS CITY Light Dept., 211 E. Main, 46933, 317/674-5660, Ted Stichler, util. engr.; 2,518 met.; no gen.; pur. 33,979,200 kWh; rev. $1,387,184.*

GREENDALE Utils., 510 Ridge Ave., Lawrenceburg, 47025, 812/537-2125, F. R. Rudolph, supt.; 1,628 met.; no gen.; pur. 154,042,680 kWh; rev. $3,498,190. (1934)*

GREENFIELD Elec. Mun. Co., 110 S. State St., 46140, 317/462-5412, Dick Towne, supt.; 4,602 met.; no gen.; sales 78,997,426 kWh; rev. $2,799,183.*

HAGERSTOWN Mun. Light Dept., 49 E. College St., 47346, 317/489-5132, Ron Roach, supt.; 1,200 met.; no gen.; pur. 18,000,000 kWh; rev. $720,700. (1923)

HUNTINGBURG Mun. Elec. Util., 511 Fourth St., 47542, 812/683-2211, Loma Wm. Hartke, supt.; 2,648 met.; no gen.; sales 42,575,065 kWh; rev. $1,948,648.*

JAMESTOWN Mun. Light Dept., Box 128, 46147, 317/676-6331, W. D. Henry, supt.; 420 met.; no gen.; pur. 5,691,200 kWh; rev. $275,140. (1917)

JASPER Mun. Elec. Util., E. Fifteenth St., Box 150, 47546, 812/482-3003, Gordon Houchin, gen. supt.; Vic Pfaff, dist. supt.; 4,343 met.; gen. 14,500 kW coal, 61.1 million kWh; pur. 83 million kWh; rev. $4,977,150. (1904)

KINGSFORD HEIGHTS Mun. Util., 46346, 219/393-3309, Don Cooper, supt.; 530 met.; no gen.

KNIGHTSTOWN Light Util., 26 S Washington St., 46148, 317/345-5977, Lillian Williams, clerk-treas., 1,578 met.; no gen., pur. 17,628,800 kWh; rev. $617,861. (1894)

LADOGA Light Dept., 47954, 317/942-2531, James Cross, mgr.; no gen.

LAWRENCEBURG Mun. Utils., 405 Main St., Box 112, 47025, 812/537-2420, Roland Horney, dir. of utils.; 5,456 met.; no gen.; pur. 97,794,000 kWh; rev. $4,243,613.*

LEBANON, City of, Utils., 201 E. Main St., Box 479, 46052, 317/482-5100, James B. Nelson, mgr.; 5,456 met.; no gen.; pur. 97,794,000 kWh; rev. $4,243,613. (1942)*

LEWISVILLE Mun. Light Dept., 47352, 317/987-7979, Robert Harris, supt.; 200 met.; no gen.

LINTON Mun. Elec., 49 N.W. "A" St., 47441, 812/847-4971, Patrick F. Turner, mayor; 3,365 met.; no gen.; pur. 45,335,100 kWh; rev. $2,043,263. (1912)

LOGANSPORT Mun. Util., City Bldg., 601 E. Broadway, 46947, 219/753-6231, K. W. Hemberger, actg. supt.; 12,017 met.; gen. 99,253,840 kWh steam turbine (coal); pur. 152,707,200 kWh; rev. $13,750,876.*

MIDDLETOWN Elec. Util., 102 N. Fifth St., 47356, 317/354-2911, Richard Westrater, supt.; 1,250 met.; no gen.; pur. 14,191,200 kWh; rev. $638,881. (1911)

MISHAWAKA Mun. Utils., 126 N. Church St., Box 363, 46544, 219/259-4242, Lawrence L. Hewett, gen. mgr.; 18,942 met.; no gen.; pur. 274,045,400 kWh; rev. $10,300,439. (1904)*

MONTEZUMA Mun. Utils., 111 Crawford St., 47862, 317/245-2759, Leroy Waymire, field supvr.; 779 met.; no gen.; pur. 3.3 million kWh.

NEW CARLISLE Mun. Elec. Util., 113 S. Arch St., 46552, 219/654-3733, Cecil McCollum, town electrician, 620 met.; no gen.; pur. 7.1 million kWh; rev. $246,730. (1905)

NEW ROSS Elec. Service Dept., 47968, 317/723-1154, Harold Poland, supt.; 180 met.; no gen.; pur. *1.2 million kWh; rev. $33,078.*

PAOLI Water & Light Dept., Public Square, 47454, 812/723-2739, Herbert Bostock, supt.; no gen.

PENDELTON Mun. Util., 122 E. State St., Box 230, 46064, 317/778-4613, Jack Guard, supt.; 1,527 met.; no gen.; pur. 21 million kWh; rev. $847,251.*

PERU Utils., 19 E. 3rd St., Box 67, 46970, 317/473-6681, William H. Buffington, mgr.; 9,529 met.; gen. 32,000 kW coal (steam turbine), 80,264,000 kWh; pur. 79,635,800 kWh; rev. $6,871,973. (1903)*

PITTSBORO Mun. Light Plant, 46167, 317/892-3435, Charles Water, supt.; no gen.

RENSSELAER Mun. Elec. Util., 122 S. Van Rensselaer St., 47978, 219/866-5212, Stephen A. Wood, mayor; 2,633 met.; gen. 4,450 kW oil, 9,640 kW dual-fuel (eng.), 115,960 kWh; pur. 52,293,600 kWh; rev. $2,897,204. (1896)*

RICHMOND Power and Light, U.S. 27 South, Box 908, 47374, 317/935-3131, Irving A. Huffman, gen. mgr.; 20,187 met.; gen. 93,000 kW coal, 441,480,140 kWh; pur. 126,835,000 kWh; rev. $24,439,624. (1902)*

RISING SUN Mun. Utils., First and Poplar Sts., 47040, 812/438-3616, Neal Hastings, supt.; 1,283 met.; no gen.; pur. 16,908,263 kWh; rev. $607,346. (1939)

ROCKVILLE Elec. Light Plant, 105 W. High St., 47872, 812/569-5145, James Skelton, supt.; 1,600 met.; no gen.; pur. 13.2 million kWh; rev. $223,370.

SCOTTSBURG Mun. Elec. Light Dept., 2 E. McClain, 47170, 812/752-4343, Herbert Robison, supt.; 3,000 met.; no gen.; pur. 48,000,000 kWh; rev. $100,000. (est. 1902)

SOUTH WHITLEY Mun. Elec. Light Dept., 202 East Front St., Box 372, 118 E. Front St., 46787, 219/723-4741 or 5312, Meredith A. Slater, supt.; 892 met.; no gen.; pur. 13,988,600 kWh; rev. $571,830. (1895)*

SPICELAND Mun. Light Plant, 47385, 317/987-7365, William Acton, supt.; 500 met.; no gen.

STRAUGHN Mun. Elec. Plant, 47387, 317/891-3166, Eldon Sons, supt.; 163 met.; no gen.; pur. 1 million kWh; rev. $25,000.

TELL CITY Elec. Dept., Box 9, City Bldg., 47586, 812/547-3201, Jack M. Joyce, supt.; 4,161 met.; no gen.; pur. 99,708,000 kWh; rev. $4,096,624. (1941)*

THORNTOWN Utils., 109 W. Main St., 46071, 317/436-2627, Jack Hutchens, supt.; 711 met.; no gen.; pur. 8,607,600 kWh; rev. $362,688. (1951)

TIPTON Util. Serv. Bd., 225 E. Jefferson St., Box 288, 46072, 317/675-7292, Noel C. Olse, util. mgr.; 3,970 met.; no gen.; pur. 5,836,800 kWh; rev. $3,075,753. (1901)*

TROY Utils., Box 57, 47588, 812/547-7501, Charles Kuntz, supt.; 312 met.; no gen.; pur. 3,662,400 kWh; rev. $203,524. (1941)

VEEDERSBURG Mun. Elec. Util., 118 Railroad Ave., 47987, 317/294-2728, Charles R. Shelton, supt.; 1,025 met.; no gen.; pur. 11,611,200 kWh; rev. $411,760. (1898)

WALKERTON Elec. Dept., 510 Roosevelt Rd., 46574, 219/586-3613, Marvin Williams, supt.; 1,050 met.; no gen.; pur. 12.7 million kWh.

WARREN Elec. Util., Box 477, 46792, 219/375-2656, Steve Furniss, supt.; 750 met.; no gen.; pur. 5.7 million kWh.

WASHINGTON City Light & Power, City Hall, 101 N. E. Third St., 47501, 812/254-2730 & 254-5171, Brayton Nalker, supt.; 7,276 met.; no gen.; pur. 102,456,000 kWh; rev. $4,506,034. (1926)

WAYNETOWN Mun. Elec. Dept., Box 215, 47990, 317/234-2154, Richard Peterman, supt.; 470 met.; no gen.; rev. $150,881.

WILLIAMSPORT Elec. Util., 29 N. Monroe St., 47993, 317/762-3257, Richard S. Briles, pres. town bd.; 780 met.; no gen.; pur. 11,302,800 kWh; rev. $412,118. (1899)

WINAMAC Mun. Utils., 120 Main St., 46996, 219/946-3451, A. Allen Boos, mgr.; 1,588 met.; no gen.; pur. 32,137,392 kWh. (1895)*

IOWA

AFTON Mun. Elec. Light, City Hall, 50830, 515/338-2263, Gary D. Kelley, 447 met.; no gen.; pur. 5,193,600 kWh; rev $236,396.

AKRON Municipal, Box 85, 51001, 712/568-2041, Robert Borchers, dir. of pub. wks.; 790 met.; pur. 10,441,692 kWh; rev. $351,058. (1921)

ALGONA Mun. Utils., 104 W. Call St., 50511, 515/295-3584, Nicholas R. Scholer, gen. mgr.; 3,357 met.; gen. 28,000, 15,000 kW coal, 13,000 kW dual-fuel, 88,228,740 kWh; pur. 13,961,000 kWh; rev. $4,460,628. (1898)*

ALTA Mun. Utils. 109 Prospect St., 51002, 712/284-1122, Ronald L. Deiber, supt.; 1,075 met.; gen. 1,250 kW oil-fired; pur. 11.3 million kWh; rev. $365,000. (1893)*

ALTA VISTA Elec. Dept., City Hall, 50603, 515/364-2975, Daniel White; 105 met.; no gen.; pur. 1.6 million kWh; rev. $44,342.

ALTON Mun. Elec., 905 3rd Ave, Drawer J, 51003, 712/756-4314, Curtis Punt, pub. works dir.; 536 met.; no gen.; pur. 8,136,755 kWh; rev. $301,635. (1968)*

AMES Mun. Elec. System, Municipal Bldg., 50010, 515/232-6210, Merlin C. Hove. dir.; 13,053 met.; gen. 81,000 kW, 60,000 kW steam, 20,000 kW gas turbine, 1,000 kW eng., 222 million kWh; pur. 16 million kWh; rev. $8,517,597. (1896)*

ANITA Mun. Utils., 828 Main St., 50020, 712/762-3845, Edward J. Brownsberger Jr., supt.; 636 met.; gen. 1,000 kWh; pur. 7,181,081 kWh; rev. $194,071. (1939)

ANTHON, City of, 51004, 712/373-5218, Robert L. Kindig, supt.; 560 met.; no gen.; pur. 4,018,410 kWh; rev. $229,962. (1976)

APLINGTON Mun. Light System, Box 308, 50604, 319/347-2425, Timothy Ubben, supt.; 488 met.; no gen.

ATLANTIC Mun. Utils., 15 W. Third St., Box 517, 50022, 712/243-1395, Richard J. Stevens, supt.; 4,285 met.; gen. 30,150 kW, 17,500 kW coal, 8,500 kW gas or oil, 4,150 kW dual-fuel, gas/oil, 94,899,000 kWh; sales 114,425,312 kWh; rev. $3,975,219. (1908)*

AUBURN Mun. Util., Box 238, 51433, 712/688-2264, Warren Prefley, supt.; 184 met.; no gen.; sales 1,416,865 kWh, rev. $102,310.

AURELIA Mun. Elec. Util., 235 Main St., 51005, 712/434-2025, Edmund Radke, chmn., bd. of trustees; 358 met.; no gen.; sales 5,607, 806 kWh; rev. $367,242. (1974)

BANCROFT Mun. Utils., 108 N. Portland St., 50517, 515/885-2772, Walter Fangman, supt.; 593 met.; gen. 1,500 kW oil, 32,800 kWh; pur. 9,454,377 kWh; rev. $531,350. (1939)*

BELLEVUE Mun. Utils., 900 N. Riverview, 52031, 319/872-3357, Ray Beschen, supt.; 1,617 met.; gen. 5,320 kW eng., 79,700 kWh; pur. 15,408,600 kWh; rev. $842,224. (1896)

BLOOMFIELD Mun. Light Plant, 111 W. Franklin St., 52537, 515/664-2260, Larry Kilburn, pub wks. dir.; 1,300 met.; gen. 7,100 kW dual-fuel, 1,500 kW diesel; 2,561,000 kWh; pur. 21,852,000 kWh; rev. $332,093. (1911)

BREDA Elec. System, 51436, 712/673-2660, Lonnie Kropf, supt.; no gen.

BROOKLYN Mun. Elec. Plant, 207 Front St., 52211, 515/522-9292, Dale Hawkins, mgr.; 793 met.; gen. 2,424 kW eng., pur. 8,770,398 kWh; rev. $323,783. (1940)

BUFFALO Mun. Distributing System, 52728, 319/381-2226, Mildred Niles, city admin.; Eldon L. Mosier, supt.; 420 met.; no gen.

BURT Mun. Elec. Util., 119 Walnut St., Box 128, 50522, 515/924-3618, Russell D. Reimers, supt.; 309 met.; no gen.; pur. 3,225,786 kWh; rev. $177,098. (1920)

CALLENDER, City of, 415 Thomas St., 50523, 515/548-3859, Frank Schuster,;203 met.; no gen.; pur 1,762,000 kWh; rev. $97,317. (1965)

CARLISLE Elec. Util., Box 430, 50047, 515/989-0840, Fred Loudenslager, supt.; 1,297 met.; no gen.; sales 12,424,912 kWh; rev. $735,176. (1931)

CASCADE Mun. Utils., 201 Pierce St., 52033, 319/852-3614, Fred A. Kremer, gen. mgr.; 1,033 met.; gen. 3,857 kW dual-fuel, 165,300 kWh; pur. 10,044,072 kWh; rev. $550,788. (1940)

CEDAR FALLS Utils., 612 E.

Twelfth St., 50613, 319/266-1761, Dean Crowe, gen. mgr.; 14,024 met.; gen. 108,000 kW, 83,000 kW coal, 25,000 kW dual-fuel (comb. turbine), 142,137,410 kWh; pur. 146,852,000 kWh; rev. $12,128,032. (1913)*

COGGON Mun. Light Plant, 131 W. Main St., 52218, 319/435-2436, Robert L. Farley, supt.; 350 met.; gen. 1,740 kW oil-fired eng., 107,000 kWh; pur. 3,000,000 kWh; rev. $154,086. (1927)

COON RAPIDS Mun. U[illegible] 3rd Ave., Box 207, 50058, 712/684-2225, Eugene P. Smith mgr.; 787 met.; gen. 6,538 kW, 3,960 kW oil, 2,578 kW coal, 15,026,562 kWh; pur. 17,551,654 kWh; rev. $1,054,451. (1936)*

CORNING Mun. Utils., 501 Benton Ave., 50841, 515/322-3920, Dean R. Davis, mgr.; 1,136 met.; gen. 5,362 kW oil, 62,380 kWh; pur. 14,663,647 kWh; rev. $481,516. (1936)*

CORWITH Elec. Dept., 50430, 515/583-2342, Tim Berhow, supt.; 230 met.; no gen.; pur. 2,166,800 kWh; rev. $1,117,646.

DANVILLE Elec. Dept., Box 265, 52623, 319/392-4685, Joe A. Green, supt.; 411 met.; no gen.

DAYTON Light & Power, 101 S. Main, 50530; 515/547-2711, Shirley B. Miller, city clerk; 2,846 met.; gen. 318 kW oil-fired eng; 1,065 kW dual-fuel eng; 15,400 kWh; pur. 4,667,919 kWh; rev. $227,627.

DENISON Mun. Utils., Box 518, 51442, 712/263-4154, Daymon Abbott, gen. mgr.; 2,846 met.; no gen.; pur. 99,376,000 kWh; rev. $2,464,900. (1914)*

DENVER City of Elec. Util., 117 N. State St., 50622, 319/984-5642, Larry Zars, city electrn., 686 met.; no gen.; pur. 8,007,600 kWh; rev. $377,130.

DIKE, City of, Box 160, 50624, 319/989-2291, Donald Knudsen, mayor; 383 met.; no gen.; pur. 4,639,500 kWh; rev. $238,160.

DURANT Mun. Elec. Plant, 601 Fourth St., Box 494, 52747, 319/785-6213, V. R. Crist, supt.; 782 met.; gen. 48,800 kWh; pur. 10,056,680 kWh; rev. $636,172. (1942)*

DYSART Elec. Dept., 52224, Box 686, 319/476-5690, Jean Jacobsen, city clerk; no gen.

EARLVILLE Light & Water System, Box 67, 52041, 319/923-3365, Vincent D. Herman, supt.; 368 met.; no gen.; pur. 3,021,600 kWh; rev. $164,051. (1916)

ELDON Mun. Utils., City Hall, 52554, 515/652-7510, Joseph Hofstetter, supt.; 560 met.; no gen.; pur. 175,122 million kWh; rev. $320,864. (1891)

ELDRIDGE Elec. & Water Util., 214 N. 2nd St., Box 350, 52748, 319/285-4841, John W. Miller, utils. mgr.; 1,146 met.; no gen.; pur. 16,122,500 kWh; rev. $1,051,790. (1900)*

ELLSWORTH Mun. Elec., 1551 [illegible] St., 50075, 515/836-4751, Raymond L. Anderson, supt.; 249 met.; no gen.; pur. 2,253,600 kWh; rev. $116,805.

ESTHERVILLE Mun. Elec. Util., 2 North 7th, 51334, 712/362-7771, Steve Woodley, city admir.; 3,383 met.; gen. 16,250 kW, 3,450 kW oil-fired, 12,800 kW dual-fuel, 175,300 kWh; pur. 49,669,800 kWh; rev. $2,776,089. (1894)

FAIRBANK Elec. Co., Box 411, 50629, 319/635-2869, Ted Vorwald, supt.; 420 met.; no gen.; pur. 4,056,000 kWh; rev. $222,664. (1920)

FARNHAMVILLE Elec. Dept., Box 206, 50538, 712/462-3366, Dennis Jacobson, supt.; 243 met.; no gen.; pur. 4,112,500 kWh; rev. $216,914,86. (1916)

FONDA Mun. Elec. System, 50540, 712/288-6618, Jack Weintzetl, supt.; 400 met.; no gen.

FONTANELLE, City of, 313 Washington St., 50846, 515/745-3961, Delmer D. Miller, supt.; 473 met.; no gen.; pur. 5,437,898 kWh; rev. $192,332. (1914)*

FOREST CITY Mun. Light Plant, 50436, 515/582-4343, Orlando Peterson, dist. supt., Willard Charlson, plant supt.; 1,370 met.; gen. 2,965 kW eng., 6.7 million kWh; pur. 1.5 million kWh; rev. $231,753.*

FREDERICKSBURG, City of, 151 West Main St., 50630, 319/237-5725, Vernon Kerr. supt.; 490 met.; no gen.; pur. 26,714,490 kWh; rev. $1,060,960. (1915)

GLIDDEN, City of, Box 349, 51443, 712/659-3010, Grace A. Thornton, city clerk; 566 met.; no gen.; pur. 6,911,349 kWh; rev. $218,962. (1911)

GOWRIE Mun. Utils., Box 47, 1102 Main St., 50543, 515/352-3065, Donald G. Borgen, Supt.; 611 met.; gen. 3,600 kW oil (eng), 4,500 kWh, purchase 6,081,627 kWh; rev. $384,061. (1934)

GRAETTINGER Mun. Light Plant, Box 178, 51342, 712/859-3844, Kenneth R. Jensen, supt.; 518 met.; gen. 1,100 kW oil-fired eng., 3,120 kWh; pur. 6,994,872 kWh; rev. $815,747. (1941)*

GRAFTON Elec. Dept., Box 27, 50440, 515/748-2981, Linda Bork, city clerk; no gen.; pur. 11,546,321 kwh; rev. $65,700.

GRAND JUNCTION Mun. Light & Water, 305 So. Eleventh St., 50107, 515/738-2285, F. M. Dittert, supt.; 536 met.; gen. 560 kW oil-fired eng., 7,300 kWh; pur. 4,786,248 kWh; rev. $296,161. (1932)

GREENFIELD Mun. Utils., 211 S. First St., Box 95, 50489, 515/743-2914, Robert Guikema, supt., 1,368 met.; gen. 5,280 kW oil-fired; pur. 17,032,805 kWh; rev. $815,747. (1890)*

GRUNDY CENTER Mun. Light & Power, 506 Seventh St., 50638, 319/824-5208, Edward (Bob) Ayers, mgr.; 1,374 met.; gen. 5,750 kW eng., 45,300 kWh; pur. 21,496,000 kWh; rev. $1,177,846. (1941)*

GUTTENBERG, City of, Box D, 502 So. First St., 52052, 319/252-1161, Thomas Lebak, city mgr.; 1,144 met.; no gen. pur. 12,528,000 kWh; rev. $583,925.

HARLAN Mun. Utils., 405 Chatburn Ave., Box 71, 51537, 712/755-5182, F. James Kalal, gen. mgr.; 2,644 met.; gen. 4,400 kW eng., 31,000 kWh; pur. 45,677,000 kWh; rev. $1,508,361. (1891)*

HARTLEY Mun. Utils., 169 S. Central Ave., 51346, 712/728-2240, Dean E. Meyer, supt.; 922 met.; gen. 2,253 kW eng. 2,800,000 kWh; pur. 9.4 million kWh; rev. $464,477. (1908)*

HAWARDEN, City of, 700 Seventh St., 51023, 712/552-2565, Russell Harris, supt. pub. wks; 1,526 met.; gen. 2,450 kW eng., pur. 19,000,957 kWh; rev. $652,349. (1894)*

HINTON Mun. Elec. System, Box 1023, 51024, 712/947-4129, William Farmer, supt.; 233 met.; no gen.; pur. 3,524,147 kWh; rev. $235,328. (1910)

HOPKINTON Mun. Utils., Box 129, 52237, 319/926-2480, John W. Westrich, supt.; 393 met.; gen. 2,036 kW oil-fired eng.; 2,600 kWh; pur. 7,317,600 kWh; rev. $281,329. (1937)

HUDSON Elec. Dept., Box 266, 50643, 319/988-3343, Edwin Andorf, supt.; 710 met.; no gen.; pur. 7.5 million kWh; rev. $278,342. (1910)

INDEPENDENCE Mun. Light Plant, 711 Seventh Ave. N.E., 50644, 319/334-3880, Gene Williamson, supt.; 3,179 met.; gen. 97,000 kW, 17,000 kW oil-fired eng., 80,000 kW gas-fired eng., 817,024 kWh; pur. 38,504,000 kWh; rev. $2,109,081. (1920)

INDIANOLA Mun. Utils., 111 S. Buxton, 50125; 515/961-5710, Roger Wood, gen. mgr.; 4,585 met.; gen. 20,600 kW comb. turbine, 14,000 kW dual-fuel, 386,800 kWh; pur. 61,882,000 kWh; rev. $2,913,900. (1891)*

KELLEY Mun. Dist. System, 1004 Hubbel St., Box 177, 50134, 515/769-2213, Cynthia L. Kaufman, city clerk; 115 met.; no gen.; pur. 915,300 kWh; rev. $49,394.

KEOSAUQUA Light Plant, Box 216, 52565, 319/293-3406, Donald Carruthers, supt.; 715 met.; gen. 1,040 kW eng., 121,700 kWh; pur. 245,386 kWh; rev. $357,059.

KIMBALLTON Mun. Light Plant, 51543, 712/773-3451, Norman Nordby, city clerk; 207 met.; gen. 400 kW eng.; pur. 2,207,026 kWh; rev. $84,691.*

LAKE MILLS Mun. Elec. Util., 201 S. Lake St., 50450, 515/592-2441, Donald F. Wirt, dir. of util.; 1,062 met.; gen. 11,500 kW (oil) eng., 130,000 kWh; pur. 18,709,442 kWh; rev. $880,770. (1932)*

LAKE PARK Mun. Utils., 209 So. Market, 51347, 712/832-3176, Merel Clark, supt.; 560 meg.; gen. 1,300 kW oil-fired eng., 4,300 kWh; pur. 6,985,100 kWh; rev. $260,684. (1947)*

LAKE VIEW Mun. Utils., 305 Main St., 51450, 712/657-2212, Eugene G. Meyers, dir. of oper., 1,248 met.; no gen.; pur. 16,176,602 kWh; rev. $475,249. (1915)

LAMONI Mun. Utils., 111 S. Chestnut St., 50140, 515/784-6911, Robert A. Colyer, supt.; 1,207 met.; gen. 5,223 kW 1,190 kW oil, 4,033 kW dual-fuel (eng)., 458,000 kWh; pur. 15,627,173 kWh; rev. $750,807. (1940)*

LA PORTE CITY Mun. Utils., 200 Main, 50651, 319/342-2053, Chuck Utley, supt., 1,347 met.; gen. 2,861 kW dual-fuel, 25,000 kWh; sales 11,081,635 kWh; rev. $529,809. (1935)

LARCHWOOD Mun. Elec., 51241, 712/477-2929, C. B. Egge, supt.; 300 met.; no gen., 3.5 million kWh; rev. $135,500.

LAURENS Mun. Light & Power Plant, 272 N. 3rd St., 50554, 712/845-4610, Michael D. Sangwin, supt.; 847 met.; gen. 4,626 kW, 3,126 kW coal (steam turbine), 1,500 kW eng., 15,092,533 kWh; pur. 15,049,948 kWh; rev. $536,913. (1949)*

LAWLER Elec. Dept., 52154, 515/238-3614, Paul V. Martin, city clerk; 278 met.; no gen.; pur. 2,635,200 kWh.; rev. $133,637.

LEHIGH, City of, Municipal Building, 50557, 515/359-2311, Franklin Boring, supt.; 317 met.; no gen.; pur. 2,048,979; rev. $119,821.

LENOX Light Plant, Box 96, 50851, 515/333-2550, Leo H. (Barney) Miller, supt. of utils.; 774 met.; gen. 2,330 kW oil-fired, 2,400 kWh; pur. 11,404,993 kWh; rev. $297,901. (1931)*

LIVERMORE Lighting Dept., 50558, 515/379-1617, Noble Harris, supt.; 306 met.; no gen.; pur. 2 million kWh; rev. $60,000.

LONG GROVE Mun. Elec. Co., Box 210, 52756, 319/285-9743, David Vens, supt.; 181 met.; no gen.; pur. 2,022,000 kWh; rev. $110,639.

MANILLA Mun. Service, 166 Sixty Ave., 51454, 712/654-3952, James H. Macumber, supt.; 525 met.; gen. 1,130 kW oil-fired eng., 1,200 kWh; pur. 7,200,000 kWh; rev. $264, 045. (1915)*

MANNING Mun. Light & Cable TV, 719 Third St., 51455, 712/653-3214, Gerald Beck, mgr.; 866 met.; gen. 1,610 kW oil-fired eng., 1,350 kWh; pur. 20,510,367 kWh; rev. $1,034,374. (1937)*

MAPLETON Mun. Elec. Plant, Front St., 51034, 712/882-1411, Clifton C. Clark, mgr.; 852 met.; gen. 1,315 kW eng., pur. 5.4 million kWh; rev. $130,087.

MAQUOKETA Mun. Elec. System, 121 S. Olive St., 52060, 319/652-2484, Patrick Callahan, city mgr.; 2,446 met.; gen. 10,235 kW, 2,200 kW oil, 8,035 kW dual-fuel (eng)., 316,800 kWh; sales 29,480,668 kWh; rev. $1,610,464. (1919)*

MARATHON, City of, Attica St., Box 188, 50565, 712/289-2261, Robert P. Baker, supt.; 238 met.; no gen.; pur. 2,309,600 kWh; rev. $139,602. (1916)

McGREGOR Mun. Utils, 52157, 319/873-2258, Bob Henkes, chmn; bd. of trustees; 526 met.; gen. 2,013 kW eng., 53,550 kWh; pur. 6.6 million kWh; rev. $379,429. (1941)

MILFORD Mun. Utils., 907 Eleventh St., Box 121, 51351, 712/338-4376, Norman Parsons, mgr.; 1,061 met.; gen. 3,500 kW, 2,000 kW coal-fired steam, 1,500 kW dual-fuel, 6,662,693 kWh; pur. 17,623,430 kWh; rev. $542,903. (1935)*

MONTEZUMA Mun. Light & Power, 406 E. Washington, 50171, 515/623-5102, Don H. Fahlenkamp, supt.; 783 met., gen. 6,438 kW, 49,296 kWh; pur. 13,480,312 kWh; rev. $724,981. (1939)*

MOUNT PLEASANT Utils., 509 N. Adams St., 52641, 319/385-2121 James Ritter, util. mgr.; 3,330 met.; gen. 10,500 kW coal, 1,500 kW diesel; pur. 2,768,227 kWh; rev. $35,897,845. (1897)

MUSCATINE Power & Water, 3205 Cedar St., Box 899, 52761, 319/263-2631, Clyde L. Bowen, gen. mgr.; 9,969 met.; gen. 123,300 kW coal (steam turbine), 437,638,000 kWh; pur. 195,817,000 kWh; rev. $20,523,053. (1922)*

NEOLA Light & Water System, 51559, 712/485-2307, George Soppe, Mgr.; 310 met.; no gen.

NEW HAMPTON Mun. Light Plant, 921 Canty Ave., 50659, 515/394-3002, Robert K. Kamrath, supt.; 1,873 met.; gen. 16,020 kW eng., 447,700 kWh; pur. 42,630,316 kWh; rev. $1,995,244. (1903)*

NEW LONDON Mun. Utils., 112 W. Main St., 52645, 319/367-5623, Orville B. Pence Jr., supt.; 1,325 met.; no gen.; pur. 12,196,800 kWh; rev. $700,530. (1909)

OGDEN Mun. Utils., Box 70, 50212, 515/275-2437, Daniel L. Wilson, supt.; 1,035 met.; gen. 3,900 kW eng., 11,500 kWh; pur. 10,053,000 kWh. (1930)*

ONAWA, City of, 914 Diamond, 51040, 712/423-1181, Everett Sorenson, supt. utils.; 1,567 met.; no gen.; pur. 22,233,528 kWh; rev. $1,223,980. (1896)*

ORANGE CITY Mun., 125 Central Ave., S. E., 51041, 712/737-4885, Allen Roos, mgr.; 2,110 met.; no gen.; pur. 38,266,695 kWh; rev. $1,714,910. (1921)*

ORIENT Mun. Utils., Box 116, 50858, 515/337-5711, Martin Wagner, supt.; 220 met.; no gen.

OSAGE Mun. Utils., 720 Chestnut St., Box 207, 50461, 515/732-3731, Weston D. Birdsall, gen. mgr.; 2,053 met.; gen. 11,700 kW gas (eng.), 602,422 kWh; pur. 24,662,088 kWh; rev. $1,194,967. (1941)*

PANORA Mun. Util. Elec., 102 N. W. 2nd, City Hall, 50216, 515/755-2164, V. L. Schieffer Jr., elec. supt.; 710 met.; no gen.; pur. 6 million kWh; rev. $350,000. (1921)

PATON Mun. Elec. Dept., 50217, 515/968-4271, Arthur Subbert, supt.; 167 met.; no gen.

PAULLINA Mun. Utils., 127 S. Main, 51046, 712/448-3428, Robert J. Alborn, city clerk; 697 met.; no gen.; pur. 8,161,802 kWh; rev. $341,462. (1919)*

PELLA Mun. Power & Light, 717 Main St., 50219, 515/628-2581, James A. Wisse, supt. of elec. oper.; 3,796 met.; gen. 38,000 kW coal-fired eng., 91,546,860 kWh; pur. 1,693,000 kWh; rev. $4,480,529. (1909)

POCAHONTAS, City of, 14 Second Ave., N. W., 50574, 712/335-3832, Duane Armstead, supt. of pub. wks.; 1,121 met.; no gen.; pur. 15,052,800 kWh; rev. $878,954. (1912)*

PRESTON Mun. Light & Power, Box 37, 52069, 319/689-3081, Gary Driscoll, plant supt.; 512 met.; gen. 4,257 kW eng., 182,600 kWh; pur. 8.6 million kWh; rev. $400,684. (1939)

PRIMGHAR Mun. Utils., 741-16th St., Box 39, 51245, 712/757-2435, Robert L. Mulder, supt.; 580 met.; gen. 1,580 kW eng., not in use; pur. 6,749,191 kWh; rev. $283,811. (1939)*

READLYN Mun. Elec., Box 70, 50668, 319/279-3411, Keith Fehkether, mayor; 366 met.; no gen.; pur. 3,636,289 kWh; rev. $202,945.

REMSEN Mun. Utils., 205 Fulton St., 51050, 712/786-2136, Louis A. Huewe, supt.; 767 met.; gen. 1,440 kW dual-fuel eng.; pur. 10,295,880 kWh; rev. $331,279. (1933)*

RENWICK Mun. Light & Power Plant, Box 174, 50577, 515/824-3511, Galen Engstrom, supt.; 209 met.; gen. 483 kW diesel; pur. 2,792,082 kWh; rev. $149,341. (1928)

ROCKFORD Mun. Light Plant, 18 First St., So., 50468, 515/756-2215, Richard Graham, Supvr.; 480 met.; gen. 1,865 kW internal combustion and gas turbine; 5,620 kWh; pur. 4,317,000 kWh; rev. $268,767. (1935)

ROCK RAPIDS Utils., 301 S. Third Ave., 51246, 712/472-2511, William G. Tobin, mgr.; 1,384 met.; gen. 2,500 kW oil-fired, eng., 27,600 kWh; pur. 22,032,000 kWh; rev. $796,511. (1896)*

ROLAND Mun. Elec., Box 288, 50236, 515/388-4638, Bill Hinds, supt.; 482 met.; no gen.; rev. $295,102. (1911)

SABULA, City of, Box 331, 52070, 319/687-2420, L. Gifford, clerk; 362 met.; no gen., pur. 2,779,000 kWh; rev. $99,200. (1965)

SANBORN Mun. Light Plant, 102 Main St., 51248, 712/729-3974, Allen Bonderman, gen. mgr.; 672 met.; pur. 11,976,210 kWh; rev. $392,956. (1947)*

SERGEANT BLUFF Mun. Light & Power, 51054, 712/943-4244, Luke Dellwo, supt. of pub. wks.; no gen.

SEYMOUR Mun. Utils., Box 54, 52590, 515/898-7146, Pat Stief, supt.; 516 met.; no gen.; sales 4,431,097 kWh; rev. $257,246.

SHELBY Mun. Elec. Util., Box 186, 51570, 712/544-2402, Lawrence Brown, supt.; 342 met.; no gen.; sales 4,591,998 kWh; rev. $137,248.*

SIBLEY Mun. Utils., 1108 Third Ave., 51249, 712/754-3454, Byron Lopau, supt.; 1,795 met.; gen. 11,633,470 kWh; pur. 18,316,935 kWh; rev. $1,125,386. (1915)*

SIOUX CENTER Mun. Utils, 337 N. Main Ave., 51250, 712/722-0761, Harold Schiebout, util. supt.; 1,703 met.; gen. 1,465 kW oil, 20,400 kWh; sales 29,084,696 kWh; rev. $1,031,946. (1949)*

SPENCER Mun. Utils., Box 5046, 51301, 712/262-3027, Neal Drefke, gen. mgr.; 5,223 met.; gen. 30,290 kW, 23,000 kW oil, 7,290 kW coal (steam turbine), 35,854,703 kWh; pur. 98,229,672 kWh; rev. $4,393,870. (1901)*

STANHOPE, City of, 50246, 515/826-3290, Edward Haman, supt.; 245 met.; no gen.; pur. 2,275,535 kWh; rev. $136,131.

STANTON Elec. Dist. System, Box 280, 51573, 712/829-2613, Larry Johnson, supt.; 313 met.; no gen.; pur. 5,829,060 kWh; rev. $139,025. (1937)

STATE CENTER Mun. Light & Power, Box 668, 50247, 515/483-2590, Charles Utley, supt.; 867 met.; gen. 5,634 kW dual-fuel, 177,300 kWh; pur. 11.3 million kWh; rev. $550,015. (1899)

STORY CITY Mun. Elec. Util., 504 Broad St., 50248, 515/733-4691, Gene R. Twedt, supt.; 1,434 met.; gen. 704 kW oil-fired, 8,316 kW dual-fuel, 308,100 kWh; pur. 20.4 million kWh; rev. $981,279. (1904)*

STRATFORD Light & Power, Box 218, 50249, 515/838-2311, Geraldine Conklin, city clerk; 395 met.; no gen.; pur. 3,761,560 kWh; rev. $186,227. (1920)

STRAWBERRY POINT Mun. Light Plant, 111 Commercial, Box 279, 52076, 319/933-4482, Ewald Maker, supt.; 697 met.; gen. 2,467 kW dual-fuel eng.; pur. 6,550,000 kWh; rev. $376,977. (1928)

STUART Mun. Util., Box 370, 50250, 515/523-2915, William Gilliam, supt.; 898 met.; gen. 2,945 dual-fuel, 149,900 kWh; pur. 10,057,530 kWh; rev. $475,849 (1891)*

SUMNER Mun. Light Plant, 105 Wapsie, 50674, 319/578-5611, Robert Jergens, supt.; 1,097 met.; gen. 1,600 kW oil, 3,700 kW dual-fuel eng.; pur. 13,000,000 kWh; rev. $738,097. (1935)*

TENNANT Elec. Dept., 51574, 712/744-3483, Tom Hansen, mayor; no gen.

TIPTON Mun. Util., 407 Lynn St., 52772, 319/886-6187, Robert E. Snavely, city coordinator; 1,658 met.; gen. 3,300 kW dual-fuel, 119,800 kWh; pur. 18,792,000 kWh; rev. $790,142. (1916)*

TRAER Mun. Utils., 649 Second St., 50675, 319/478-8760, Wilson A. Briggs, supt.; 1,070 met.; gen. 4,312 kW dual-fuel, 420 kW diesel; 317,000 kWh; pur. 12,249,600 kWh; rev. $712,000. (1917)*

VILLISCA Mun. Power Plant, City Hall Bldg., 50864, 712/826-3192, Herbert A. Phillis, supt.; 856 met.; pur. 9,656,106 kWh; rev. $237,045. (1936)*

VINTON Mun. Elec., Second Ave. and Second St., 52349, 319/472-3663, Marvill K. Mostrom, supt.; 2,355 met.; gen. 15,400 kW oil-fired eng., 383,400 kWh; pur. 26,805,600 kWh; rev. $1,407,093. (est. 1913)

WALL LAKE, City of, Box 27, 51466, 712/664-2216, Virtus Pittman, councilman; 450 met.; no gen.; pur. 9,092,000 kWh; rev. $270,276. (1903)*

WAVERLY Mun. Elec. Util., 1500 W. Bremer Ave., 50677, 319/352-6251, Chris Schmidt, dir. of elec. utils.; 3,738 met.; gen. 16,690 kW, 2,600 kW diesel, 13,595 kW dual-fuel, 495 kW hydro, 71,844,190 kWh; pur. 71,827,500 kWh; rev. $4,276,469. (1904)*

WEBSTER CITY, City of, Light & Power, Mun. Bldg., 50595, 515/832-4271, Jerry Kent, city mgr., 4,215 met.; gen. 15,000 kW coal, 20,000 kW gas turbine, not in use; pur. 78,935,847 kWh; rev. $4,017,290. (1890)*

WEST BEND Mun. Power Plant, 10 N. Broadway, Box 411, 50597, 515/887-3111; James E. Schuller, supt.; gen. 4,747 kW, dual-fuel, 300 kW oil-fired eng.; 515,500 kWh. (1915)*

WESTFIELD Elec. Dept., 51062, Box 5, 712/568-2631, Ronnie Burke, city clerk; 88 met.; no gen.; pur. 960,000 kWh, rev. $42,000.

WEST LIBERTY, Mun. Elec. Util., 101 W. 4th St., 52776, 319/627-2418, Edw. R. Stiff, city mgr.; 1,228 met.; gen. 6,656 kW, 5,800 kW dual-fuel, 856 kW oil-fired eng., 324,600 kWh; pur. 39,974,600 kWh; rev. $1,588,143. (1897)

WEST POINT Mun. Lighting Dept., 52656, 319/837-6313, Richard Pietz, supt.; 607 met.; no gen.; rev. $322,449.

WHITTEMORE Mun. Power Plant, Box 116, 50598, 515/884-2631, Dean Zoet, supt.; 238 met.; gen. 2,203 kW internal combustion, 198,274 kWh; pur. 4,558,176 kWh; rev. $198,274.

WILTON Mun. Light & Power, 220 W. Third St., 52778, 319/732-2929, Rick J. Cayton, supt.; 1,223 met.; gen. 4,335 kW, 29,600 kWh; pur. 16,865,974 kWh; rev. $742,066. (1891)*

WINTERSET Mun. Utils., 321 N. First St., 50273, 515/462-2152, George C. Berry, supt.; 2,061 met.; gen. 8,400 kW, 750 kW oil-fired eng., 7,730 kW dual-fuel eng., 1,000 kWh; pur. 23,587,704 kWh; rev. $1,078,206. (1895)*

WOODBINE Mun. Light and Power, 517 Walker St., 51579, 712/647-2340, Bruce Walters, supt.; 1,040 met.; gen. 1,580 kW eng., 63,475 kWh; pur. 9 million kWh; rev. $274,869.*

WOOLSTOCK Elec. Dept., 50599, Box 57, 515/839-5531, Hazel Brock, city clerk; 120 met.; no gen.

KANSAS

ALMA, City of, 326 Missouri, 66401, 913/765–3922; Max Kraus, supt., light plant; 473 met.; no gen.; pur. 4,900,600 kWh; rev. $329,805. (1938)

ALTAMOUNT, City of, Box 305, 67330, 316/784-5503, Charles Arb, supt.; 477 met.; no gen.; pur. 5.7 million kWh; rev. $193,301. (1934)

ANTHONY, City of, Box 504, 67003, 316/842-5960, Jack C. Scott, supt. of utils.; 1,948 met.; gen. 12,000 kW, 4,655,750 kWh; pur. 19,605,600 kWh; rev. $1,390,561. (1879)*

ARCADIA Mun. Elec. Dept., Box 126, 66711, 316/638-4310, Bill Morris, supt.; 223 met.; no gen.; pur. 1.3 million kWh; rev. $34,333.

ARMA, City of, 701 E. Washington, Box 829, 66712, 316/347-4125, James C. Jones, util. supt., 758 met.; no gen.; pur. 7,781,400 kWh; rev. $397,249.

ASHLAND, City of, Box 547, 67831, 316/635-2531, Donald R. German, city supt.; 723 met.; gen. 4,975 kW dual-fuel eng., 7,019,200 kWh; sales 6,788,787 kWh; rev. $479,259. (1909)

ATTICA, City of, 101 N. Main, 67009, 316/254-7216, Donald Bateman, gen. supt.; 450 met.; gen. 2,360 kW, 509,300 kWh; pur. 4.1 million kWh, rev. $229,134.

AUGUSTA Mun. Elec. Dept., Box 489, 67010, 316/775-2391, James W. Rawlings, supt. elec. gen.; 3,138 met.; gen. 1,106 kW oil-fired, 22,636 kW dual-fuel, 27,839,800 kWh; pur. 15,684,400 kWh; rev. $2,541,481. (1911)

AXTELL, City of, 401 Maple, 66403, Clair Hill; 235 met.; no gen.; pur. 1,776,400 kWh; rev. $98,852.

BALDWIN CITY Mun. Light & Water Dept., 316 Elm, 66006, 913/594-6427, William Randell, supt.; 1,062 met.; gen. 6,112 kW eng., 10 million kWh; pur. none; rev. $391,000.

BELLEVILLE, City of, Box 280, 66935, 913/527-2288, Dick Ash, city mgr.; 1,619 met.; gen. 13,125 kW dual-fuel, 19,229,60 kWh; pur. none; rev. $1,132,004. (1923)*

BELOIT Mun. Power, 215 S. Chestnut, 67420, 913/738-5121, Daniel Moellenberndt, city admr.; 2,067 met.; gen. 19,900 kW eng., 36.3 million kWh; pur. 30,200 kWh; rev. $343,037. (1951)*

BLUE MOUND Mun. Dist. System, 66010, Lloyd Spillman, supt. light plant; 190 met.; no gen.; pur. 1.3 million kWh; rev. $63,580.

BRONSON Mun. Light & Power, 66716, 316/939-4578, Harold Johnson, supt.; 210 met.; no gen.; pur. 1.2 million kWh; rev. $22,800. (1926)

BURLINGAME Power & Light Dept., 101 E. Santa Fe, 66413, 913/654-3922, Norman Bloomquist, supt., 645 met.; gen. 4,630 gas and diesel internal comb., 5,178,329 kWh; rev. $398,507. (1902)

BURLINGTON Mun. Light & Power Dept., 301 Neosho St., 66413, 316/364-5575, Alfred Mann, elec. supt., 1,500 met.; gen. 3,620 kW tri-fuel, 767,620 kWh; pur. 19,088,000 kWh; rev.$1,220,700. (1935)

CAWKER CITY, City of Mun. Light & Water Dept., 804 Locust St., 64730, 913/781-4713, Delbert Wallace, util. supt.; 425 met.; no gen.; pur. 3,673,600 kWh; rev. $258,342. (1913)

CENTRALIA Mun. Light System, 66415, 913/857-3764, Paul Elliott, elec. supt.; 262 met.; no gen.; pur. 2.3 million kWh; rev. $121,623.

CHANUTE, City of, Box 907, 66720, 316/431-9306, Ronald Reed, dir. elec. utils., 6,559 met.; gen. 22,250 kW, 16,500 kW steam, 1,750 kW oil, 4,000 kW dual-fuel, 11,847,000 kWh; pur. 76,084,400 kWh; rev. $4,699,996. (1903)*

CHAPMAN, City of, Box 321, 67431, James Murrison, lt. and water supt.; 565 met.; no gen.

CHETOPA, City of, Box 203, 67336, 316/236-7511, Lloyd T. McGill, city supvr.; 730 met.; no gen.; pur. 10.1 million kWh; rev. $353,000.

CIMARRON, City of, 119 S. Main, Box 467, 67835, 316/855-2322, Vernon Hanna, city supt.; 803 met.; no gen.; pur. 10,000,000 kWh; rev. $459,296.

CLAY CENTER, City of, Elec. & Water Dept., 427 Court St., Box 117, 67432, 913/632-2137, D. D. Dierking, supt. of util.; 2,811 met.; gen. 21,903,000 kWh; pur. 15,868,800 kWh; rev. $2,291,431. (1907)*

COATS, City of, Box 115, 67028, 316/893-2324, Larry Flory, utils. supt.; 103 met.; no gen.; pur. 580,114 kWh; rev. $34,010. (1920)

COFFEYVILLE Mun. Light & Power, 7th & Walnut, Box 498, 67337, 316/251-7000, ext. 239, M.A. Buckner, dir. of elec. utils.; 8,614 met.; gen. 80,050 kW steam, 21,307,400 kWh; pur. 127,716,800 kWh; rev. $9,076,422. (1901)*

COLBY Dept. of Pub. Pwr., 585 N. Franklin, 67701, 913/462-3973, James D. Whitney, dir. of public power; 2,626 met.; gen. 18,170 kW dual-fuel, 8,302,100 kWh; pur. 31,104,920 kWh; rev. $1,829,765. (1910)*

DeSOTO, City of, 108 W. Second St., Box C, 66018, 913/585-1182, Eldon Brown, dir., pub. wks., 743 met.; no gen.; pur. 8,374,400 kWh; rev. $558,718.

DIGHTON Mun. Light & Water

Dept., 147 E. Long St., 67839, 316/397-5541, Harry Smith, utils. supt.; 800 met.; no gen.; pur. 8,455,304 kWh; rev. $532,883. [2]

ELLINWOOD, City of, 201 W. 1st St., Box 278, 67526, 316/564-3161; Glen E. Welden, city admin.; 1,128 met.; gen. 8,479 kW eng.; 3,571,400 kWh; pur. 10,516,000 kWh; rev. $901,212. (1948) [3]

ELLIS, City of, W. 6th St., Box 27, 67637, 913/726-4741, Bruce Romey, power plant supv.; 1,023 met.; gen. 6,195 dual-fuel eng., 9,655, 400 kWh, pur. 3,319,600; rev. $707,337. (1928) [3]

ELWOOD, City of, 6th & Kentucky, 66024, 913/365-6871, Paul Rounds, city admin.; 453 met.; no gen.; pur. 5,194,000 kWh; rev. $299,664. [2]

ENTERPRISE Mun. Lighting System, 67441, 913/934-2323, G. W. (Jude) Saip Jr., city supt.; 380 met.; no gen.; rev. $97,404.

ERIE Mun. Light & Power, 224 S. Main, Box 196, 66733, 316/244-3488, Charles Clines, power plant supt.; 725 met.; no gen.; pur. 7,828,000 kWh; rev. $488,527. (1915)* [2]

EUDORA Mun. Elec. Dept., Seventh and Main, 66025, 913/542-2095, John Pinnick, supt.; 1,033 met.; no gen.; pur. 10.8 million kWh; rev. $566,800. [1]

FREDONIA Mun. Power Plant, 314 N. Seventh St., 66736, 316/378-2404, Pat Flynn, util. supt.; 1,500 met.; gen. 7,200 kW dual-fuel eng.; 2,108,300 kWh; pur. 33,628,000 kWh; rev. $1,346,703. (1901) [2]

GALVA, City of, 208 S. Main, Box 223, 67443, 316/654-3561, Vernon R. Koehn, city supt.; 342 met.; no gen.; pur. 2,823,900 kWh; rev. $172,619. [3]

GARDEN CITY Mun., Box 499, 67846, 316/276-8263, Deane P. Wiley, city mgr.; 7,614 met.; no gen.; pur. 114,417,460 kWh; rev. $6,339,850. [2]

GARDNER Mun. Elec. System, 112 S. Elma St., 66030, 913/884-7535, Richard McNett, supt.; 1,015 met.; no gen.; pur. 16,978,500 kWh; rev. $1,121,680. [2]

GARNETT, City of, 131 W. Fifth, 913/448-5496, R. G. Doran, city mgr.; 1,839 met.; gen. 7,030 kW eng., 9.4 million kWh; pur. 10.1 million kWh; rev. $909,013. (1918)* [2]

GIRARD Mun. Light & Water Plant, 100 S. Ozard, 66743, 316/724-8918, William Larner Sr., supt. of prod.; 1,532 met.; gen. 7,735 kW eng.; pur. 21 million kWh; rev. $839,933.

GLASCO, City of, 67445, 913/568-2705, W. LeRoy Wolf, util. supt.; 450 met.; no gen.; pur. 3.6 million kWh; rev. $221,349. [2]

GLEN ELDER, City of, Box 55, 101 S. Market St., 67446, 913/545-3322, Geneva Winkel, city clerk; 316 met.; no gen.; pur. 2,926,176 kWh; rev. $209,821. [2]

GOFF Elec. Dept., 66428, 913/939-2770, Larry Hicks, mayor; 110 met.; no gen.; pur. 592,000 kWh; rev. $24,647.

GOODLAND Mun. Power Plant, 17th and Cherry, 67735, 913/899-5200, Pete Walker, plant supt.; 2,500 met.; gen. 21,000 kW, 770 kW oil fired eng., 20,230 dual-fuel eng., 40,121,900 kWh, pur. none; rev. $2,071,556. (1937) [2]

GREENSBURG Light Plant, 400 N. Main, 67054, 316/723-2691, Melvin Simmons, supt.; 1,040 met.; gen. 7,062 kW dual-fuel eng., 11,640,100 kWh; pur. none; rev. $800,189. (1911) [2]

HAVEN Light, Water & Power, 118 S. Kansas Ave., 67543, 316/465-3618, Don R. Huston, maint. supv.; 535 met.; no gen.; pur. 7,468,000 kWh. [3]

HERINGTON Mun. Water & Elec. Dept., 715 S. Broadway, 67449, 913/258-2271, W. A. Wetmore, city mgr.; 1,557 met.; gen. 9,700 kW eng., 20.1 million kWh; pur. 48,166 kWh; rev. $841,121. (1888)* [1]

HERNDON Mun., 67739, 913/322-5341, Ronald Beims, Mayor; 152 met.; no gen.; pur. 1,174,000 kWh; rev. $94,307. (1937) [2]

HILL CITY, City of, 205 N. Pomeroy, 67642, 913/674-3438, Glenn Harper, mayor; 1,190 met.; gen. 6,900 kW dual-fuel eng., 13,228,400 kWh; sales 11,915,581; rev. $985,081. (1900s) [3]

HILLSBORO, City of, 115 E. Grand, 67063, 316/947-3162, R. James, Supt.; 1,355 met.; no gen.; pur. 13,975,200 kWh; rev. $741,567. (1930) [2]

HOISINGTON Mun. Elec. Util., Box 418, 67544, 316/653-4125, Harold Tarlton, city mgr.; 2,098 met.; gen. 14,980 kW, 14,334,100 kWh; pur. 4,970,600 kWh; rev. $1,188,756. (1940) [3]

HOLTON Power Plant, 430 Penn. Ave., 66436, 913/364-3719, Lyle L. Lee, supt.; 2,300 met.; gen. 14,600 kW eng.; pur. 20,224,800 kWh; rev. $1,213,480. (1931) [3]

HOLYROOD Light & Water Dept., 110 S. Main, 67450, Tom Randolph, 913/252-3652, supt.; 330 met.; no gen.; pur. 2.5 million kWh; rev. $183,774 (1918) [2]

HORTON, City of, E. Fifteenth St., 66439, 913/486-3911, Cleo N. Coffman, supt.; 1,002 met.; gen. 3,000 kW dual-fuel eng., 46,600 kWh; pur. 10,417,600 kWh; rev. $652,667. (1912) [3]

HUGOTON City Water & Light Dept., 114 E. Fifth St., Box 788, 67951, 316/544-8531, Everett Rowden, supt.; 1,679 met.; gen. 13,470 kW eng., 20.3 million kWh; pur. none; rev. $1,077,520. (1919)* [1]

IOLA, City of, 2 West Jackson St., Box 308, 66749, 316/365-2771, Les Olm, city supt.; 4,216 met.; gen. 23,750 kW, 10,000 kW gas, 13,750 kW eng. (oil), 9,214,700 kWh; pur. 51,647,900 kWh; rev. $2,488,040. (1900)* [3]

ISABEL City Elec. Dept., Box 97, City Hall, 67065, 316/739-4347, Carolyn Armstrong, city clerk; 80 met.; no gen.; pur. 827,600 kWh; rev. $38,226. [2]

IUKA, City of, Box 127, 67066, 316/546-2215, Warren Taylor, mayor; 123 met.; no gen; pur. 1,696,000 kWh; rev. $118,151. [3]

JETMORE, City of, Public Municipality, Box 8, 67854, 316/357-8344, Dean Hertel, supt., 580 met.; no gen. [2]

JOHNSON Mun. Power Plant, Main St., Box 500, 67855, 316/492-2322, Rex McGowne, supt.; 649 met.; gen. 4,250 kW dual-fuel eng., 10,787,600 kWh; pur. 1,136,300 kWh. (1938) [2]

KANSAS CITY Bd. of Pub. Utils., 700 Minnesota Ave., 66101, 913/281-8100, Ervin Sims, Jr., gen. mgr.; 72,130 met.; gen. 877,000 kW, 601,000 kW coal, 90,000 kW gas (steam turbine), 171,000 oil (comb. turbine), 15,000 kW gas (comb. turbine), 1,879,557,000 kWh; pur. 84,526 kWh; rev. $112,222,119. (1929)* [3]

KINGMAN Water and Light Dept., Box 168, 67068, 316/532-3111, Ben M. Payton, supt.; 1,800 met.; gen. 14,000 kW dual-fuel, 3,900,000 kWh; pur. none; rev. $1,650,000. (1913)* [2]

KIOWA 67070, 316/825-4127, Bill Terwort, city mgr.; 800 met.; no gen.; pur. 10.1 million kWh; rev. $652,500. (1976) [2]

LA CROSSE, City of, 1119 Main, 67548, 913/222-2511, Dudley Schutte, city mgr.; 908 met.; gen. 9,670,100 kW dual-fuel, 9,670,100 kWh; pur. 366,000 kWh; rev. $729,868. (1906) [2]

LA HARPE Water & Light Dept., Box 121, 66751, 316/496-2241, George Poffenbarger, supt., 289 met.; no gen.; pur. 1,538,247 kWh; rev. $92,669. [2]

LAKIN Elec. Dept., Box 148, 67860, 316/355-6252, John Speer, city supt.; 933 met.; no gen.; pur. 9,727,200 kWh; rev. $679,234. (1915) [2]

LARNED, Mun. Elec. Util., Box 70, 67550, 316/285-3544, Ron Arnold, util. supt.; 2,600 met.; gen. 20,460 kW, 12,760 kW gas, 6,450 kW dual-fuel, 1,250 kW gas turbine, 16,519,000 kWh; pur. 21,226,800 kWh; rev. $1,905,162. (1916)* [3]

LINCOLN Light Dept., 67455, 913/524-4280, Dan Smith, supt.; 954 met.; gen. 5,300 kW eng., 10.8 million kWh; pur. none; rev. $274,870.

LINDSBORG Water & Light, Box 70, 67456, 913/227-2421, Carrol W. Webber, Power Plant Supt.; 1,306 met.; gen. 6,000 kW dual-fuel eng.; 5,342,890 kWh; sales 14,615,557 kWh; rev. $1,092,348. [2]

LUCAS Mun. Elec. System, Box 308, 67648, Gary Ward, supt.; 320 met., no gen.; pur. 2.8 million kWh; rev. $150,000. [2]

LURAY, City of, Light & Water, Box 158, 67649, 913/698-2304, Leland Winunger, supt.; 178 met.; no gen.; pur. 1,600,000 kWh; rev. $104,265. (1915) [3]

MAHASKA City Elec. Dept., 66955, Wayne Graham, supt.; 74 met.; no gen.; pur. 483,000 kWh; rev. $21,565.

MANKATO, City of, Elec. Util., 210 N. Commercial, 66956, 913/378-3141, D. L. Hamilton, city admin.; 731 met.; no gen.; pur. 7,038,400 kWh; rev. $495,830. (1950) [3]

MARION, City of, 203 N. Third, 66801, 316/382-3703, Junior Bredemeier, city supt.; 1,089 met.; no gen.; pur. 11,791,200 kWh; rev. $611,330. [2]

McPHERSON Bd. of Pub. Utils., 400 E. Kansas, 67460, 316/241-0661, Donald E. Gerard, gen. mgr.; 6,780 met.; gen. 218,100 kW, 48,000 kW steam, 111,800 kW oil (comb. turbine), 57,300 kW gas (comb. turbine), 1,000 kW oil-fired eng., 56,447,000 kWh; pur. 341,125,000 kWh; rev. $11,463,181. (1909)* [3]

MEADE, Mun. Power & Light, 132

S. Fowler, 67864, 316/873-2091, Carrol Webber, city supt.; 1,015 met; gen. 10,000 kW dual-fuel eng., 11,000,000 kWh; pur. 3,000,000 kWh; rev. $705,600. (1910)

MINNEAPOLIS Light Plant, 110 Markley Ave., 67467, 913/392-2152, Leo Baker, supt.; 1,046 met.; gen. 8,174 kW dual-fuel, 2,322,350 kWh; pur. 11,357,150 kWh; rev. $804,366. (1921)

MONTEZUMA, City of, Box 37, 67867, 316/846-2264, Dwight Watson, city supt.; 436 met.; no gen.; pur. 5,841,600 kWh; rev. $335,812. (1921)

MORAN, City of, Box 396, 66755, 316/237-4301, James Cole, supt.; 370 met.; no gen.; pur. 3.7 million kWh; rev. $150,706. (1900)

MORRILL, City of, Box 146, 66515, 913/459-2231, Dale Gaston, util. supt., 179 met.; no gen.; pur. 1,153,800 kWh; rev. $8,061. (1927)

MOUNDRIDGE, City of, 216 S. Christian, 67107, 316/345-2661, Elmer Goering, city admin., 694 met.; no gen.; pur. 10,483,000 kWh; rev. $464,656. (1909)

MOUNT HOPE Mun. Elec., Box 56, 67108, Chris Rasmussen, city engr.; 324 met.; no gen.; pur. 4,012,000 kWh; rev. $208,204.

MULBERRY Mun. Light Plant, 66756, 316/764-3815, Frank Tersina, supt.; 333 met.; no gen.; 1.3 million kWh; rev. $100,000. (1915)

MULVANE, City of, 211 N. 2nd St., 67110, 316/777-4491, Gary Rambo, supt.; 1,795 met.; gen. 6,272 kW, 5,622 kW dual-fuel, 650 kW oil, 10,000 kWh; pur. 20,997,600, rev. $1,150,733. (1902)

MUSCOTAH, City of, 66058, 913/872-3536, Robert G. Myers, mayor; 113 met.; no gen.

NEODESHA Mun. Power Plant, West Main St., 66757, 316/325-2925, Toby Kemper, supt., power plant; 1,850 met.; gen. 8,150 kW dual-fuel eng., 11,554,700 kWh; pur. 15,720,100 kWh; rev. $1,374,153. (1912)

NETAWAKA Elec. Light System, 66515, Kenneth Keithline, city clerk; 84 met.; no gen.; pur. 660,600 kWh; rev. $27,265.

NORTON Mun. Light Plant, 301 E. Washington, 67654, 913/877-3355, Dennis McMullen, city supt.; 1,850 met.; gen. 11,000 kW eng., 22,656,000 kWh; sales 18,476,912 kWh; rev. $1,374,153. (1912)

OAKLEY, City of, 400 Price St., Box 716, 67748, 913/672-3401, Frank D. Salisbury, city supt.; 1,298 met.; gen. 8,220 kW, 7,805 kW dual-fuel, 415 kW oil, 6,103,000 kWh; pur. 11,095,956 kWh; rev. $1,088,542. (1910)*

OBERLIN, City of, 107 W. Commercial, 67749, 913/475-2933, Phyll Cramer, city supt.; 1,450 met.; gen. 7,175 kW eng., 725,200 kWh; pur. 7,332,004 kWh; rev. $844,592. (early 1900s.)

OSAGE CITY Mun. Light Plant, Fifth and Main Sts., 66523, 913/528-1851; Elaine Needham, city admin.; 1,523 met.; gen. 7,155 kW eng., 15.2 million kWh; pur. none; rev. $730,000.

OSAWATOMIE, City of, Fifth and Main, Box 37, 66064, 913/755-4138, Bill J. Kellum, dir. of utils.; gen. 412,630 kW dual-fuel eng.; pur. 20,478,700 kWh.*

OSBORNE, City of, 133 W. Main St., 67473, 913/346-5611, Norman Christie, plant supt.; 1,110 met.; gen. 6,840 kW dual-fuel, 10,492,600 kWh; pur. 2,340,000 kWh; rev. $840,291.

OTTAWA, City of, Util. Dept., Fourth and Walnut, 66067-2299, 913/242-2190, Jack E. Davis, dir. utils.; 5,184 met.; gen. 34,750 kW, 4,000 kW oil & gas, 19,250 kW dual-fuel, 11,500 kW comb. cycle, 58.2 million kWh; pur. 19.6 million kWh; rev. $4,009,549. (1906)

OXFORD Mun. Elec. Dept., Box 337, 67119, 316/455-2223, T. L. O'Hearn, supt.; 612 met.; no gen.; pur. 7,557,600 kWh; rev. $347,794.

POMONA, City of, Box 67, 66076, 913/566-3522, Carl E. Waltman, util. supt.; 475 met.; no gen.; pur. 4,149,800 kWh; rev. $273,590. (1914)

PRATT, City of, Elec. Dept., 321 W. 10th St., 67124, 316/672-2022, Arlyn Bradford, supt.; 3,860 met.; gen. 32,500 kW, 23,500 kW steam (gas), 9,000 kW steam (oil), 55,260,200 kWh; pur. 5,000,000 kWh; rev. $4,026,192. (1910)*

PRESCOTT City Elec. Dept., 66767, 913/471-2421, Elaine Shroyer, city clerk; 153 met.; no gen.; pur. 1.2 million kWh; rev. $52,876. (1921)

RADIUM Light Dept., 67571, 316/982-4695, John Paden, city clerk; 34 met.; no gen.; pur. 47,843 kWh; rev. $30,141.

ROBINSON, City of, 120 Parsons St., 66532, 913/544-6850, Loren Davenport, mayor; 152 met.; no gen.; pur. 1,396,200 kWh.

RUSSELL, City of, 135 W. Eighth, 67665, 913/483-6311, Earl Homewood, elec. util. dir.; 3,387 met.; gen. 5,000 kW oil-fired 18,143 kW dual-fuel eng., 63,424,600 kWh; sales 54,945,512 kWh; rev. $2,917,729. (1910)

SABETHA Mun. Light Dept., 66534, Melvin Mowder, pur. agt.; 1,414 met.; total gen. 11,562 kW; pur. none; rev. $598,512.

ST. FRANCIS Mun. Water & Light, Box 517, 67756, 913/332-3031, Bernard C. Roelfs, city supt.; 900 met.; gen. 5,000 kW dual-fuel, 9,260,500 kWh; sales 7,674,329 kWh; rev. $717,517. (1914)

ST. JOHN Mun., Box 367, 67576, 316/549-3536, William D. Kirkpatrick, supv. of services; 1,057 met.; gen. 3,628 kW dual-fuel, 1,732,600 kWh; pur. 6,837,800 kWh; rev. $635,918. (1910)

ST. MARY'S Mun. Light & Water Dept., 412 W. Bertrand Ave., 66536, 913/437-2311, Henry Beseau, city mgr.; 800 met.; no gen.; pur. 10,689,600 kWh; rev. $643,203. (1908)

SAVONBURG Elec. Light Dept., 66772, Don Ellison, city clerk; 45 met.; no gen.; pur. 311,200 kWh; rev. $14,000.

SCRANTON, City of, Box 96, 66537, 913/793-2414, Bernard Lee, mayor; 292 met.; no gen.; pur. 2,717,400 kWh; rev. $171,690.

SENECA City Elec., Box 40, 66538, 913/336-3537, Frank Rusche, elec. supt.; 1,189 met.; no gen.; pur. 15 million kWh; rev. $504,366. (1914)

SEVERANCE Elec. Dept., 66081, 913/359-6694, Leo Zeltner, city clerk; 55 met.; no gen.; pur. 281,000 kWh; rev. $14,991.

SEWARD Elec. Dept., 67577, 316/458-5731, Gail Daly, city clerk; 44 met., no gen.; pur. 342,000 kWh.

SHARON SPRINGS, City of, Box 490, 67758, 913/852-4232, Norman L. (Pete) Sharp, city supt.; 559 met.; gen. 3,117 kW dual-fuel, 6,006,500 kWh; sales 4,910,123 kWh; rev. $486,680. (1918)*

STAFFORD Mun. Power Plant, 519 S. Boston, 67578, 316/234-5561, John C. Jones; 911 met.; gen. 3,915 kW dual-fuel, 2,470,700 kWh; pur. 5,478,400 kWh; rev. $460,662.

STERLING, City of, 114 North Broadway, Box 287, 67579, 316/278-3411, Randy Wetmore, city mgr.; 894 met.; gen. 5,840 kW eng., 13,076,440 kWh; pur. 9,124,800 kWh; rev. $733,485. (1916)

STOCKTON Mun. Power Plant, box 512, 67669, 913/425-6703, Rich Nienstedt, city mgr.; 981 met.; gen. 6,200 kW dual-fuel; sales 9,061,680 kWh; rev. $714,960. (1908)

SUMMERFIELD Water & Elec. Dept., 66541, Olynn Larmore, mayor, 125 met. no gen.

TIPTON, City of, Main St., 67485, 913/373-4135, Virgil Jeardoe, supt.; 145 met.; no gen.; pur. 1.4 million kWh; rev. $120,000.

TORONTO Mun. Light Plant, Box 235, 66777, 316/637-2605, Clyde Boone, supt.; 273 met.; no gen.; pur. 1,801,600 kWh; rev. $113,321.

TROY, City of, Box 506, 137 W. Walnut, 913/985-2265, 66087, Clarence Blake, mayor; 640 met.; no gen.; pur. 5,191,200 kWh; rev. $336,854. (1911)

UDALL Water & Light Dept., 109 N. Clark St., 67146, 316/782-3512, Corbett Wilson, supt.; 325 met.; no gen.; pur. 3,451,200 kWh; rev. $129,041. (1939)

VERMILLION, City of, 66544, Don White, supt.; 103 met.; no gen.; rev. $28,353.

WAMEGO Light & Water, Box 86, 66547, 913/456-9119, Lyle H. Dresher, city mgr.; 1,581 met.; gen. 8,310 kW dual-fuel eng., 8,396,283 kWh; pur. 12,894,600 kWh; rev. $1,097,591. (1908)*

WASHINGTON Mun. Power Plant, Park Road, Box 296, 66968, 913/325-2231, Ivan W. Hinkle, power plant supvr.; 842 met.; gen. 6,861 kW dual-fuel, 8,857,000 kWh; pur. none; rev. $589,483. (1938)

WATERVILLE Mun. Light Plant, 66548, 913/785-2367, A. C. Tryon, util. supt.; 410 met.; no gen.; pur. 3.6 million kWh; rev. $134,287.

WATHENA Mun. Elec. Lighting System, 66090, 913/989-4711, Greg Phelps, supt.; 600 met.; pur.

WEBBER Elec. Dept., 66970, 913/753-4401, Glen Bailey, mayor.

WELLINGTON, Mun. Utils., 317 S. Washington, 67152, 316/326-3631, Art Preston, city mgr.; 4,123 met.; gen. 32,500 kW gas, 1,000 kW dual-fuel 81,187,200 kWh; sales 73,504,444 kWh; rev. $4,108,208. (1902)

WINFIELD, City of, Box 646, 67156, 316/221-4891, John W. Elder, dir., 7,359 met.; gen. 55,750 kW, 44,500 kW gas, 11,250 gas (comb. turbine), 81,369,000 kWh; pur. 58,647,800 kWh; rev. $6,647,799. (1904)*

KENTUCKY

(Systems designated "TVA" are distributors of Tennessee Valley Authority power and purchase all of their power from TVA.)

BARBOURVILLE Water & Elec. Co., Box 651, 40906, 606/546-3187, Randall Young, gen. mgr.; 3,154 met.; no gen.; pur. 52,080,000 kWh; rev. $2,549,506. (1938)

BARDSTOWN, City of, N. 5th St., 40004, 502/348-5947, Larry Hamilton, city engr.; 2,484 met.; no gen.; pur. 64,103,000 kWh; rev. $2,881,603.*

BARDWELL City Utils., Box 277, 42023, 502/628-3833, Donald M. Terry, mgr.; 547 met.; no gen.; pur. 5,907,132 kWh; rev. $360,393. (1941)

BENHAM City Utils., City Hall, 40807, Malcolm Barr Sr., chmn., power bd.; 320 met.; rev. $190,000.

BENTON Elec. System, Box 124, 42025, 502/527-3666 or 527-3651, Jim Owens, mgr.; 2,038 met.; pur. 47,911,680 kWh; rev. $2,240,522 (TVA) (1945)*

BEREA College, Utils., CPO 2337, 40404, 606/986-4611, Donald Bewley, util. adm.; 3,352 met.; pur. 74,515,000 kWh; rev. $3,270,623. (est. 1891)*

BOWLING GREEN Mun. Utils., 801 Center St., Box 478, 42101, 502/782-1200, James Tabor, acting gen. mgr.; 17,374 met.; pur. 527,705,831 kWh; rev. $22,229,885. (TVA) (1942)*

CORBIN City Util. Comm., 901 S. Main St., 40701, 606/528-4026, George P. Rains, gen. mgr.; 3,828 met.; no gen.; pur. 58.5 million kWh; rev. $1,957,391.

FALMOUTH City Utils., 41040, 606/654-6937, Pete Lawson, supt.; no gen.; rev. $450,000.

FRANKFORT Elec. and Water Plant Bd., 315 W. Second St., Box 308, 40601, 502/223-3401, John C. Wagner, gen. mgr.; 16,521 met.; no gen.; pur. 400,710,800 kWh; rev. $17,197,069. (1943)*

FRANKLIN Elec. Plant Bd., 309 N. High St., Box 349, 42134, 502/586-4441, Bill Austin, supt.; 3,789 met.; pur. 135,851,428 kWh; rev. $5,916,659 (TVA) (1943)*

FULTON Elec. System, 101 Nelson Tripp Place, Box 130, 42041, 502/472-1362, Billy Moss, mgr.; 1,772 met.; pur. 41,332,000 kWh.; rev. $1,923,344. (1962)

GLASGOW Elec. Plant Bd., 100 Mallory Drive, 42141, 502/651-8341, William J. Ray, gen. mgr.; 5,491 met.; no gen.; pur. 213,761,238 kWh; rev. $7,844,484. (TVA) (1962)*

HENDERSON Mun. Power & Light, 4th & Water Sts., Box 8, 42420, 502/826-2726, Bill L. Perry, gen. mgr.; 11,384 met.; gen. 353,000 kW, 351,000 kW coal, 2,000 kW dual-fuel, 2,009,982,711 kWh; sales 1,991,015,806 kWh; rev. $20,786,334. (1897)*

HICKMAN Elec., Box 228, 42050, 502/236-3951, James Eakes, mgr.; 1,351 met.; sales 18,546,199 kWh; rev. $901,239. (TVA) (1970)*

HOPKINSVILLE Elec. Plant Bd., 101 N. Main St., Box 544, 42240, 502/887-4212, W. Howell Hightower supt.; 12,008 met.; no gen.; pur. 322,284,509 kWh; rev. $13,583,726. (TVA) (1942)*

MADISONVILLE Mun. Light & Water Plant, E. Center St., Box 704, 42431, 502/821-4522, J. T. Tarpley, mgr.; 7,681 met.; no gen.; pur. 174,710,900 kWh.; rev. $8,253,700. (TVA) (1922)

MAYFIELD Elec. & Water Systems, 301 E. Broadway, 42066, 502/247-4661, Joe E. Rister, gen. supt.; 5,649 met.; pur. 116,683,000 kWh; rev. $5,332,961. (TVA) (1942)*

MONTICELLO, City of, Elec. Plant Bd., 615 Columbia Ave., Box 657, 42633, 606/348-8102, James H. McCune, supt.; 2,801 met.; pur. 68,120,400 kWh; rev. $2,901,546. (TVA) (1960)*

MURRAY Elec. System, Box 1095, 42071, 502/753-5312, Ron Underwood, supt.; 5,781 met.; pur. 179,612,801 kWh; rev. $7,975,006. (TVA) (1942)*

NICHOLASVILLE, City of, Elec. Dept., 517 N. Main St., Box 158, 40356, 606/885-9473, David House, mgr.; 4,000 met.; no gen.; pur. 64,800,000 kWh; rev. $2,100,000

OLIVE HILL, City of, Mun. Power, Box 490, 41164, 606/286-2192 Alice Fielding, util. clerk; 1,190 met.; no gen.; rev. $575,723.

OWENSBORO Mun. Utils., Box 806, 42302, 502/926-3200, John P. Pace, gen. mgr.; 24,678 met.; gen. 415,000,000 kW; 415,000,000 kW coal; 572,381,000 kWh; sales 538,703,813 kWh; rev. $17,847,433. (1900)*

PADUCAH Power System, 1400 Broadway, Box 180, 42001, 502/442-2711, W. L. Borgerding, gen. mgr.; 20,036 met.; pur. 437,999,159 kWh; rev. $20,679,765. (TVA) (1961)*

PARIS, City of, 800 Pleasant St., 40361, 606/987-2630, Ronald K. Bailey, dir. of elec. utils.; 2,164 met.; gen. 11,000 kW oil (eng.), 176,400 kWh; rev. $1,195,729. (1931)*

PRINCETON Elec. Plant Bd., 304 Legion Dr., Box 608, 42445, 502/365-2031, Walter R. Smith, supt.; 3,762 met.; no gen.; pur. 65,198,557 kWh; rev. $3,195,094. (TVA) (1961)*

PROVIDENCE Mun. Utils., North Willow St., Box 128, 42450, 502/667-5463, James A. Gooch Jr., mayor; 1,958 met.; no gen.; pur. 24,480,000 kWh; rev. $932,973. (1921)

RUSSELLVILLE, City of, Elec. Plant Bd., Box 208, 42276, 502/726-2466, George M. Wheeler, supt.; 3,693 met.; pur. 88,076,400 kWh; rev. $3,900,870. (TVA) (1942)*

VANCEBURG Elec. Light, Heat & Power Sys., 611 Front St., Box 117, 41179, 606/796-2641, Donald Burton, supt.; 2,601 met.; no gen.; pur. 28,257,400 kWh; rev. $1,330,686. (1939)*

WILLIAMSTOWN City Utils., 400 N. Main St., 41097, 606/824-3352, Jeffrey Clemons, asst. supt.; 1,297 met.; no gen.; pur. 30,000,000 kWh; rev. $1,750,000. (1925)

LOUISIANA

ABBEVILLE Water & Light Plant, 717 Veteran Memorial Drive, 70510, Joseph E. Vise, supt.; 8,700 met.; gen. 108,500 kW, 80,600 kW gas, 14,300 kW dual-fuel, 10,000 kW gas (comb. turbine), 3,600 kW gas eng., 422,154,117 kWh; pur. 369,000,000 kWh; rev. $15,571,000. (1898)

ALEXANDRIA Utilities Division, City Hall, Box 71, 71301, 318/473-1100, R. L. Lawrence, dir. of utils.; 20,000 met.; gen. 175 kW gas steam, 424,487,000 kWh; pur. 91,306,000 kWh; rev. $26,107,000. (1907)

BOYCE Mun. Water & Light Plant, 71409, 318/793-2175, Donald Guagnoli, supt.; 800 met.; no gen.

ERATH, Town of, 115 W. Edwards, 70533, 318/937-8140; Melinda Simon; 781 met.; no gen.; pur. 13,922,000 kWh; rev. $569,472.

GUEYDAN Mun. Plant, 600 Main St., 70542, 318/536-9415, J. Roy Guidry, supt.; 748 met.; no gen.; pur. 14,255,000 kWh; rev. $668,954.

HOUMA, City of, Box 6097, 70361, 504/868-5050, John E. Carlson Jr., city elec. engr.; 8,700 met.; gen. 108,500 kW, 80,600 kW gas, 14,300 kW dual-fuel, 10,000 kW gas (comb. turbine), 3,400 kW gas (eng.), 422,154,117 kWh; sales 396,000,000; rev. $15,571,000. (1898)*

JONESVILLE Power & Light Dept., Box 428, 71343, 318/339-2051, Ted Husser, supt.; 1,100 met.; no gen.; pur. 30 million kWh.

KAPLAN Mun. Water & Light Plant, 70548, Newton Bercier, supt.

LAFAYETTE, City of, Utils. Systems, Box 4017-C, 70502, 318/261-8808, T. J. Labbe, dir.; 33,179 met.; gen. 630,000 kW steam turbine, 915,752,400 kWh; sales 854,612,248 kWh; rev. $26,974,982. (1897)*

MINDEN Light & Water Dept., Box 580, 71055, 318/377-2144, Gordon Bartage, supt.; 6,125 met.; gen. 36,000 kW, 25,000 kW steam, 11,000 kW dual-fuel, 74,421,000 kWh; pur. 35,916,000 kWh; rev. $6,498,932. (1920)

MORGAN CITY Mun. Power Plant, 808 Florence St., Box 1218, 70380, 504/385-1770, Joseph J. Cefalu, supt.; 6,800 met.; gen. 70,000 kW, 62,000 kW steam, 8,000 kW eng., 133,000,000 kWh; pur. 57,900,000 kWh; rev. $2,940,000. (1934)

NATCHITOCHES, City of, Box 37, 71457, 318/352-2901, Robert J. Tynes, dir. utils.; 6,085 met.; gen. 53,200 kW, 43,500 kW steam, 9,700 kW eng.; pur. 62,586,000 kWh. (1901)

NEW ROADS Mun. Light & Water Dept., 237 W. Main St., 70760, 504/638-8047, Roy E. Davis, supt.; 1,961 met.; gen. 9,500 kW dual-fuel eng.; 7,333,000 kWh; pur. 22,962,000 kWh. (1903)

OPELOUSAS Elec. & Water System, Box 712, 70570, 318/942-6997, Tim Boyd, supt. (Leased July 1, 1981, for 10 years to Southwest Louisiana Electric Corp.) (1930)

PLAQUEMINE City Light & Water Plant, City Hall, 70764, 504/687-4796, Ron Losik, util. supt.; 4,500 met.; gen. 44,000 kW gas, 3,000 kW oil-fired, 10 million kWh; pur. 65 million kWh; rev. $7,780,000. (1949)*

RAYNE Mun. Power Plant, 201 3rd St., Box 69, 70578, 318/334-5870, Pierre Gary, supt.; 3,725 met.; no gen.; pur. 61,386,000 kWh; rev. $3,149,550. (1903)

RUSTON Util. System, Box 280,

71270, 318/255-0800, Max W. Albritton, supt. of utils.; 7,775 met.; gen. 91,000 kW gas (steam turbine), 159,676,770 kWh; pur. 73,275,000 kWh; rev. $12,501,496. (1920)*

ST. MARTINVILLE, City of, 121 New Market St., 70582; Tom Lovas, supt.; 2,654 met.; pur. 39,010,000 kWh; rev. $1,928,125.

VIDALIA Mun. Utils., 409 Texas St., 71373, 318/336-5206, Lovice B. Beard, mgr.; 2,352 met.; no gen.; pur. 31.6 million kWh; rev. $745,368. (1905)*

VINTON, Town of, 1200 Horridge St., 70668, 318/589-7453, E. L. Bahnsen, supt. pub. works; 1,618 met.; no gen.; pur. 23,199,000 kWh; rev. $1,434,635. (1910)*

WELSH, Town of, Box 786, 70591, 318/734-2231, Robert J. Louviere, supt. pub. works; 1,546 met.; no gen.; pur. 26,339,000 kWh; rev. $1,041,205. (1926)*

WINNFIELD, City of, Utils. Dept., Box 312, 71483, 318/628-4452, J. D. Jones, elec. supt.; 3,053 met.; no gen.; pur. 59,892,000 kWh; rev. $1,526,043. (1945)

MAINE

HOULTON Water Co., 21 Bangor St., Box 726, 04730, 207/532-2259, Paul W. Coleman, gen. mgr.; 4,703 met.; no gen.; pur. 64,706,925 kWh; rev. $3,121,385. (1908)*

KENNEBUNK Light & Power Dist., 36 Water St., 04043, 207/985-3311, Phillip R. Davis, gen. mgr.; 3,212 met.; gen. 600 kW hydro, 2,542,890 kWh; pur. 49,477,000 kWh; rev. $2,554,722. (1893)

LEWISTON City of, Island Ave., 04240, 207/782-8511, Denis R. Caron, elec. supt.; (no residential meters; facility used only for water pumping and street lighting;) gen. 750 kW hydro, 5.3 million kWh. Municipal use only.

LUBEC Water & Elec. Dist., 24 Water St., 04652, 207/733-5526, Robert B. Miller, mgr.; 1,153 met.; no gen.; pur. 8,223,600 kWh; rev. $579,320. (1951)*

MADISON Elec. Works, 26 Weston Ave., Box 190, 04950, 207/696-4401, Norman E. Sawyer, supt.; 1,359 met.; gen. 300 kW hydro, 2,040,600 kWh; pur. 21,258,000 kWh; rev. $1,383,018. (1897)

VAN BUREN Light & Power Dist., 67 Main St., 04785, 207/868-3321, Louis F. Parent, mgr.; 1,359 met.; no gen.; pur. 16,527,600 kWh; rev. $867,154. (1917)*

MARYLAND

BERLIN, Town of, 10 Williams St., 21811, 301/641-2770, Ronald L. Bireley, adm. dir.; 1,250 met.; gen. 3,592 kW, 4.8 million kWh; pur. 21.5; rev. $1,686,722. (1919)*

EASTON Utils. Comm., 219 N. Washington St., 21601, 301/822-6110, Roger C. Judd, gen. mgr. 5,592 met.; gen. 29,810 kW oil-fired, 17,400 gas, 47,288,010 kWh; pur. 70,084,590 kWh; rev. $8,362,237. (1914)*

HAGERSTOWN Mun. Elec. Light Plant, 600 S. Cannon Ave., 21740, 301/790-2600, R. W. Jerrim, util. mgr.; 16,921 met.; no gen.; pur. 200,000,000 kWh; rev. $10,461,378.*

THURMONT Mun. Light, 10 Frederick Rd., 21788, 301/271-7313, Marion Wm. Rice, supt. pub. wks.; 1,600 met.; no gen.; pur. 32.3 million kWh; rev. $900,100. (1910)

WILLIAMSPORT Elec. Light Plant, 21795, 301/223-7711, M. Lee Draper, supt.; 800 met.; no gen.; pur. 12.2 million kWh; rev. $606,258.

MASSACHUSETTS

ASHBURNHAM Mun. Light Plant, 86 Central St., 01430, 617/827-4423, Robert W. Gould, mgr.; 2,097 met.; no gen.; pur. 16,596,429 kWh; rev. $1,250,489. (1907)

BELMONT Mun. Light Dept., 450 Concord Ave., 02178, 617/484-2780, Kenneth L. Conroy, mgr.; 10,435 met.; no gen.; pur. 91,316,160 kWh; rev. $6,650,779. (1898)*

BOYLSTON, Town of, Sanatorium Rd., 01505, 617/869-2626, Edward H. Kimball, mgr.; 1,408 met.; no gen.; pur. 13,890,597 kWh; rev. $1,321,809. (1912)*

BRAINTREE Elec. Light Dept., 44 Allen St., 02184, 617/848-1130, Donald H. Newton, mgr.; 12,261 met.; gen. 96,000 kW oil (comb. cycle), 5,000 kW oil (eng.); 21,429,000 kWh; pur. 262,104,000 kWh; rev. $21,737,304. (1892)*

CHESTER Mun. Light Dept., Middlefield St., Box 307, 01011, 413/354-7811, Robert Wyman, comm. chrm.; 416 met.; no gen.; pur. 5,834,560 kWh; rev. $325,699. (1926)

CHICOPEE Mun. Light Plant, 725 Front St. 01021-0405, 413/598-8311, Herve L. Plasse, mgr.; 21,403 met.; gen. 8,250 kW oil-fired; 1,204,800 kWh; pur. 287,512,262 kWh; rev. $18,972,574. (1894)*

CONCORD Mun. Light Plant, 135 Keyes Rd., 01742, 617/369-2500, John R. O'Neil, plant supt.; 6,421 met.; no gen.; pur. 118,550,661 kWh; rev. $9,161,823. (1905)*

DANVERS Elec. Div., 2 Burroughs St., 01923, 617/774-0005, Michael Madore, plant supt.; 9,463 met.; no gen.; pur. 19,139,445 kWh; rev. $14,248,841. (1889)*

GEORGETOWN Mun. Light Dept., Moulton and W. Main Sts., 01833, 617/352-8611, James E. Hazen, mgr.; 2,647 met.; no gen.; pur. 28,085,962 kWh; rev. $2,115,185. (1912)*

GROTON Elec. Light Dept., Station Ave., 01450, 617/448-6655, Roger H. Beeltje, mgr.; 2,647 met.; no gen.; pur. 28,085,962 kWh; rev. $2,115,185. (1909)*

GROVELAND Mun. Light Dept., 23 School St., 01834, 617/372-1671, Gerald E. Hill, mgr.; 1,742 met.; no gen.; pur. 17,783,716 kWh; rev. $1,247,338. (1907)*

HINGHAM Mun. Light Plant, 19 Elm St., 02043, 617/749-0134, Joseph Spadea Jr., mgr.; 8,151 met.; no gen.; pur. 30,436,719 kWh; rev. $8,242,747. (1894)*

HOLDEN Mun. Light Dept., Reservoir St., 01520, 617/829-4719, Neil E. Murray, mgr.; 5,193 met.; no gen.; pur. 73,657,521 kWh; rev. $5,037,000. (1912)

HOLYOKE Gas & Elec. Dept., 70 Suffolk St., 01040, 413/534-0221, George F. Leary, mgr.; 17,723 met.; gen. 37,480 kW, 24,800 kW oil or gas, 10,000 kW oil turbine, 2,680 kW hydro, 15,635,000 kWh; pur. 115,424,300 kWh; rev. $16,887,886. (1902)*

HUDSON Light and Power Dept., 49 Forest Ave., 01749, 617/568-8736, Horst Huehmer, mgr.; 8,210 met.; gen. 20,600 kW; 4,000 kW oil (eng.), 16,600 kW dual-fuel, 21,882,632 kWh; pur. 141,226,803 kWh; rev. $9,670,486. (1897)*

HULL, Town of, Mun. Light. Plant, 15 Electric Ave., 02045, 617/925-0051, Philip Ternullo, mgr.; 4,475 met.; no gen.; pur. 33.2 million kWh; rev. $1,804,186. (1894)*

IPSWICH, Elec. Dept., 222 High St., 01938, 617/356-4331, Lawrence Pszenny, interim mgr.; 5,110 met.; gen. 9,309 kW eng.; 4,965,040 kWh; pur. 66,808,600 kWh; rev. $4,997,284. (1904)*

LITTLETON Elec. Light & Water Dept., Whitcomb Ave., 01460, 617/486-3105, Curtis J. Lanciani, gen. mgr.; 4,125 met.; gen. 500 kW steam, 4,473,000 kWh; pur. 65,035,000 kWh; rev. $4,971,000. (1912)*

MANSFIELD Mun. Elec. Dept., 50 West St., 02048, 617/339-7011, John Larch, mgr.; 4,786 met.; no gen.; pur. 120,566,420 kWh; rev. $9,431,289. (1903)*

MARBLEHEAD Mun. Light Dept., 80 Commercial St., Box 369, 01945, 617/631-0240, Richard L. Bailey, gen. mgr.; 9,248 met.; gen. 6,000 kW oil (eng.), 485,117 kWh; pur. 72,105,710 kWh; rev. $5,699,808. (1894)*

MERRIMAC Mun. Light Dept., 2 School St., 01860-1996, 617/346-8311, Raymond J. Bastarache, mgr.; 1,776 met.; no gen.; pur. 14,594,793 kWh; rev. $914,135. (1904)*

MIDDLEBOROUGH Gas & Elec. Dept., Town Hall, Nickerson Ave., 02346, 617/947-1371, John Dunfey, mgr.; 8,420 met.; no gen.; pur. 105,250,553 kWh; rev. $7,372,123. (1893)*

MIDDLETON Mun. Light. Dept., S. Main St., Box 68, 01949, 617/774-4313, Mark Kelly, mgr.; 1,633 met.; no gen.; pur. 44.1 million kWh; rev. $1,988,136. (1914)*

NORTH ATTLEBORO Elec. Dept., 43 S. Washington St., 02760, 617/699-7542, David Sweetland, mgr.; 8,538 met.; no gen.; pur. 103,279,705 kWh; rev. $7,387,388. (1894)*

NORWOOD Mun. Light Dept., 404 Central St., Box 40, 02062, 617/762-0115, John J. Carroll, gen. mgr.; 13,348 met.; no gen.; pur. 202.5 million kWh; rev. $9,500,000. (1907)*

PAXTON Mun. Light Dept., 578 Pleasant St., 01612, 617/756-9508, Harold L. Smith, mgr.; 1,321 met.; no gen.; pur. 15,996,316 kWh; rev. $1,184,843. (1913)*

PEABODY Mun. Light Plant, 70 Endicott St., 01960, 617/531-5975, Bruce P. Patten, mgr.; 18,678 met.; gen. 29,500 kW, 20,000 kW oil

(comb. turbine), 9,500 kW oil (eng.), 2,204,000 kWh; pur. 245,266,314 kWh; rev. $20,182,352. (1894)*

PRINCETON Mun. Light Dept., Box F, 01541, 617/464-2815, Richard F. Wheeler, mgr.; 1,084 met.; no gen.; pur. 7.2 million kWh; rev. $496,139. (1913)*

READING Town of, Mun. Light Dept., 25 Haven St., Box 150, 01867, 617/944-1340, Norbert D. Rhinerson, gen. mgr.; 20,617 met.; no gen.; pur. 447,507,001 kWh; rev. $30,581,118. (1894)*

ROWLEY Mun. Lighting Plant, 47 Summer St., 01969, 617/948-3992, G. Robert Merry, mgr.; 1,692 met.; no gen.; pur. 15,293,600 kWh; rev. $1,227,185. (1910)*

RUSSELL Mun. Light Dept., Shattuck Rd., 01071, 413/862-4400, Herman L. Boyden, mgr.; 361 met.; no gen.; pur. 3.5 million kWh; rev. $132,637. (1920)

SHREWSBURY's Elec. Light Plant, 100 Maple Ave., 01545, 617/845-4881, James E. Baker, mgr.; 9,164 met.; gen. 13,750 kW eng.; 3,495,000 kWh; pur. 160,828,213 kWh; rev. $9,205,220. (1908)*

SOUTH HADLEY, Town of, Elec. Light Dept., 85 Main St., 01075, 413/536-1050, Wayne D. Doerpholz, mgr.; 6,380 met.; no gen.; pur. 102,892,100 kWh; rev. $6,464,658. (1914)*

STERLING Mun. Elec. Light Dept., Box 327, 01564, 617/422-6662, William H. Rugg, mgr.; 2,164 met.; no gen.; pur. 28,597,338 kWh; rev. $1,933,282. (1911)*

TAUNTON Mun. Lighting Plant, 55 Weir St., 02780, 617/824-5844, Joseph Blain, mgr.; 22,532 met.; gen. 25,000 kW oil (steam turbine); 110,000 kW oil (comb. cycle); 168,387,000 kWh; pur. 279,837,017 kWh; rev. $35,593,051. (1897)*

TEMPLETON Mun. Lighting Plant, 2 School St., Baldwinville, Mass., 01436, 617/939-5323, Gerald P. Skelton, mgr.; 2,330 met.; no gen.; pur. 70,160,749 kWh; rev. $4,228,087. (1906)*

WAKEFIELD Mun. Light Dept., 9 Albion St., 01880, 617/245-0027, William J. Wallace, mgr.; 9,895 met.; no. gen.; pur. 114,379,150 kWh; rev. $8,226,975. (1894)*

WELLESLEY, Town of, Mun. Lighting Plant, 455 Worcester St., Box 364, Wellesley Hills, 02181, 617/235-7600, Maurice R. Berdan, mgr.; 8,948 met.; no gen.; pur. 156,595,384 kWh; rev. $11,768,860. (1892)*

WEST BOYLSTON Mun. Lighting Plant, 4 Crescent St., 01583, 617/835-3681, Charles H. Coughlin, mgr.; 2,464 met.; no gen.; pur. 47,581,591 kWh; rev. $2,962,668. (1910)*

WESTFIELD Gas & Elec. Light Dept., 100 Elm St., Box 990, 01085, 413/562-5141, Daniel Golubek, mgr.; 13,713 met.; no gen.; pur. 224,085,827 kWh; rev. $13,987,948. (1899)*

MICHIGAN

BARAGA, Village of, Box 285, 49908, 906/353-6237, J. H. Ross, supt.; 525 met.; no gen.; pur. 3 million kWh.

BAY CITY Elec. Light & Power, 900 S. Water, 48706, 517/894-8344, Richard G. Harris, dir., elec. utils; 13,650 met.; gen. 5,750 kW dual-fuel, 160,038,000 kWh; pur. 160,304,800 kWh; rev. $10,199,516. (1886)*

CHARLEVOIX City of, 210 State St., 49720, 616/547-2271, James Brinker, city mgr.; 2,870 met.; no gen.; sales 30,123,294 kWh; rev. $1,715,134.

CHELSEA Elec. & Water Dept., 104 E. Middle St., 48118, 313/475-1771, Charles Hafner, supt.; 1,588 met.; no gen.; pur. 22,823,000 kWh; rev. $1,177,052. (1898)

CLINTON Bd. of Pub. Works, 119 E. Michigan Ave., 49236, 517/456-4207, Richard W. Sharpe, supt. pub. works; 800 met.; gen. 2,310 kW eng.; 10.4 million kWh; pur. 1.9 million kWh; rev. $288,000.

COLDWATER Bd. of Pub. Utils., 28 W. Chicago St., 49036, 517/279-9531, James R. Endicott, dir.; 5,419 met.; gen. 22,000 kW, 8,000 kW coal (steam turbine), 4,500 kW oil-eng., 9,500 kW dual-fuel (eng.), 59,048,000 kWh; pur. 8,849,900 kWh; rev. $7,079,979. (1891)*

CROSWELL Light & Power Dept., 120 E. Sanborn Ave., 48422, 313/679-2120-2121, Parry G. Baer, mgr.; 980 met.; no gen.; pur. 24 million kWh; rev. $1,014,433. (1897)

CRYSTAL FALLS Elec. Dept., 401 Superior Ave., 49920, 906/875-6650, Walter E. Hagglund, city mgr.; 1,472 met.; gen. 1,100 kW hydro; 6,271,300 kWh; pur 8,522,000 kWh; rev. $753,000 (1891)*

DAGGETT Elec. Dept., Gen. Delivery, 49821, 906/753-6915, Stanley Saltz, maint.; 200 met.; no gen.; pur. 1,137,000 kWh. (1912)

DETROIT City of, Pub. Lighting Dept., 9449 Grinnell Ave., 48213, 313/267-7258, William F. Gaughan, actg. supt.; 1,459 met.; gen. 184,000 kW, 154,000 kW oil (steam turbine), 30,000 kW oil (combus. turbine), 214,699,000 kWh; pur. 427,878,000 kWh; rev. $52,934,255. (1893)*

DOWAGIAC Dept. of Pub. Services, 203 Chestnut St., 49047, 616/782-8200, Larry J. Rohacs, dir.; 2,423 met.; gen. 3,100 kW, 2,100 kW oil, 1,000 kW dual-fuel (eng.), 1,531,000 kWh; pur. 41,283,000 kWh; rev. $1,845,265. (1936)*

EATON RAPIDS, City of, 206 S. Main St., 48827, 517/663-8118, Dennis O. Craun, city mgr.; 1,824 met.; no gen.; pur. 25,612,000 kWh; rev. $1,451,565. (1898)

ESCANABA Mun. Elec. Util., 120 N. Eighth St., 49829, 906/786-0061, Edwin A. Korpi, supt.; 7,407 met.; gen. 25,000 kW steam; pur. 96.1 million kWh; rev. $4,528,000. (1894)*

GLADSTONE Elec. Dept., 1100 Delta Ave., 49837, 906/428-1633, Lawrence M. Young, supt.; 2,800 met.; gen. 19.2 million kWh; pur. 1.8 million kWh; rev. $935,000. (1955)

GRAND HAVEN Bd. of Light & Power, 650 Harbor Ave., 49417, 616/846-6250, Jack Buckner, gen. mgr.; 8,796 met.; gen. 40,400 kW, 20,000 kW coal (steam turbine), 11,300 kW oil, 2,100 kW gas, 7,000 kW dual-fuel (eng.), 125,443,200 kWh; pur. 31,370,200; rev. $9,380,490. (1896)*

HARBOR SPRINGS, City of, 170 Zoll St., 49740, 616/526-2122, Gerald Felix, city mgr., Douglas V. Porter, elec. dist. supt.; 2,182 met.; no gen.; pur. 18.1 million kWh; rev. $961,450. (1898)

HART Hydro Elec., 407 State St., 49420, 616/873-2434, Vern Lambrix, supt.; 1,344 met.; gen. 2,974 kW, 964 kW oil-fired eng., 1,690 kW dual-fuel eng., 320 kW hydro gas turbine, 4,762,000 kWh; pur 12,446,600 kWh; rev. $853,000. (1927)

HILLSDALE Bd. of Pub. Util., City Hall, 49242, 517/437-7314, Ronald D. Neer, dir. of utils.; 4,938 met.; gen. 18,981 kW, 1,923 kW oil, 17,058 kW dual-fuel (eng.), 101,983,000 kWh; sales 91,853,931 kWh; rev. $5,691,356. (1893)*

HOLLAND Bd. of Pub. Works, 268 River Ave., 49423, 616/396-4628, Tim Morawski, gen. mgr.; 15,025 met.; gen. 76,900 kW, 56,900 kW coal (steam turbine), 20,000 kW oil (combus. turbine), 239,766,000 kWh; pur. 65,427,000 kWh; rev. $16,046,289. (1893)*

L'ANSE, Village of, Elec. Util., 101 Main St., 49946, 906/524-6116, Bruce G. Carlson, supt.; 1,500 met.; no gen.; pur. 10,557,000 kWh; rev. $577,346. (1908)

LANSING Bd. of Water & Light, 123 W. Ottawa St., Box 13007, 48901, 517/487-4829, Earl F. Brush, dir. and gen. mgr.; 80,691 met.; gen. 628,700 kW, 627,500 kW coal (steam turbine), 1,200 kW hydro, 2,425,757,813 kWh; pur. 3,755,000 kWh; rev. $110,182,277. (1892)*

LOWELL Mun. Light & Power Plant, 127 N. Broadway, 49331, 616/897-8402, Herbert Haines, supt.; 1,700 met.; pur. 24.8 million kWh.

MARQUETTE Bd. of Light & Power, 2200 Wright St., 49855, 906/228-6900, Wilbert W. Wiitala, dir.; 13,152 met.; gen. 75,300 kW, 33,600 kW steam, 23,700 kW gas turbine, 14,100 kW eng., 3,900 kW hydro, 175,000,000 kWh; pur. 30 million kWh; rev. $12,993,078. (1889)*

MARSHALL City Water & Elec. Works, 109 E. Michigan Ave., 49068, 616/781-3968, Richard C. Ashdown, admr.; 3,964 met.; gen. 13,080 kW, 12,761 kW eng., 319 kW hydro, 22.4 million kWh; pur. 34.7 million kWh; rev. $3,039,299. (1892)*

NEGAUNEE City of, City Hall, Silver St., 49866, 906/475-7220, T.R. McNabb, city mgr., 2,270 met.; no gen.; pur. 20,080,800 kWh; rev. $1,224,905.

NEWBERRY Water & Light, 307 E. McMillan, 49868, 906/293-8531, Keith Sleeper, supt.; 1,314 met.; gen. 4,540 kW dual-fuel, 142,000 kWh; pur. 17,160,650 kWh; rev. $733,842. (1890)

NILES Utils. Dept., 602 E. Main St., Box 217, 49120, 616/683-4700, S. A. Brett, mgr.; 6,627 met.; gen. 460 kW hydro, pur. 100,093,900 kWh; rev. $4,040,157. (1894)*

NORWAY City of L&P Dept., 915 Brown St., 49870, 906/563-9641, J. E. Stanchina, supt.; 1,768 met.; gen. 3,500 kW hydro, 24,345 kWh; pur. 2,747,900 kWh; rev. $690,000. (1904)

PAW PAW, Village of, Dept. of Pub. Works, 110 Berrien St., 49079, 616/657-3169, Harry L. Bush, supt. of pub. works; 1,657 met.; no gen.;

pur. 765,000 kWh; rev. $1,189,882. (1898)*

PETOSKEY, City of, 200 Division St., 49770, 616/347-4105, Frank A. McCune, dir. pub. wks.; 3,417 met.; pur. 58,308,000 kWh; rev. $3,575,139. (1898)*

PORTLAND, Mun. Elec. Utils., 723 East Grd. River, 48875, 517/647-6912, 647-7531, Nyle Blaschka, supt. elec. utils.; 1,830 met.; gen. 1,538 kW hydro, 1,291,480 kWH; pur. 19,936,213 kWh; rev. $1,282,948. (1896)

ST. LOUIS Mun. Elec. Util., 412 N. Mill St., 48880, 517/681-3351, Ron Gibson, supt.; 1,693 met.; gen. 2,155 kW oil, 1,360 kW gas (eng.), 408 kW hydro, 2,675,020 kWh; pur. 12,912,000 kWh. (1899)

SEBEWAING Light & Water Dept., 110 W. Main, 48759, 517/883-2700, Arthur G. Reinhold, supt.; 1,100 met.; gen. 8,400 kW dual-fuel eng.; 3,000,000 kWh; pur. 19,000,000 kWh; rev. $1,200,000. (1911)*

SOUTH HAVEN City of Bd., of Pub. Utils., Box 507, 49090, 616/637-5211, Paul L. Preston Jr., city mgr.; 5,979 met.; no gen.; sales 96,344,115 kWh; rev. $3,608,748. (1902)*

STEPHENSON City of, 49887, 906/753-2225, Stanley Saltz, supt.; 459 met.; no gen.; sales 5,149 kWh; rev. $202,077. (1920)

STURGIS, City of, Box 280, 49091, 616/651-2321, John E. Brand, city mgr.; 5,695 met.; gen. 5,350 kW oil, 6,000 kW dual-fuel (eng.), 1,000 kW hydro, 12,989,860 kWh; pur. 117,312,000 kWh; rev. $5,621,661. (1910)*

TRAVERSE CITY Light & Power Dept., 400 Boardman Ave., Governmental Center, Box 592, 49685-0592, 616/941-2309, Thomas Richards, exec. dir.; 6,768 met.; gen. 27,000 kW coal (steam turbine), 7,500 kW gas (combus. turbine), 500 kW hydro, 143,883,264 kWh; pur. 80,597,485 kWh; rev. $8,747,073. (1912)*

UNION CITY Elec. Dept., 215 W. High St., 49094, 517/741-8591, James E. Spencer, supt.; 1,000 met.; gen. 1,500 kW eng.; pur. 176,131,000 kWh; rev. $612,049.

WAKEFIELD Light & Power Dept., City Hall, 1211 Hancock St., 49968, 906/229-5132, Lawrence R. Anderson, supt.; 1,107 met.; no gen.; pur. 9,965,000 kWh; rev. $515,000. (1920)*

WYANDOTTE City of, Dept. of Mun. Service, 3005 Biddle Ave., 48192, 313/282-7100, Dale O. Simmons, gen. mgr.; 14,154 met.; gen. 56,000 kW 33,000 kW coal, 23,000 kW comb. cycle (gas), 176,131,000 kWh; pur. 4,243,265 kWh; rev. $9,863,248. (1894)*

ZEELAND Bd. of Pub. Works, 21 South Elm St., 49464, 616/772-6212, Martin J. Hieftje, util. mgr.; 2,411 met.; gen. 22,000 kW dual-fuel eng., 51,745,750 kWh; pur. 22,896,000 kWh; rev. $4,327,740. (1935)*

MINNESOTA

ADA Water & Light Dept., 56510, 218/784-2211, P. Donovan, dir., pub. works; 1,350 met.; no gen.; pur. 16,268,533 kWh; rev. $483,811.

ADRIAN Pub. Util. Comm., 20 Maine Ave., 56110, 507/483-2680, Leo J. Hensen, supt.; 665 met.; no gen.; pur. 9,395,424 million kWh; rev. $322,053.*

AITKIN Pub. Util. Comm., 120 First St., N.W., 56431, 218/927-3222, Wilfrid Fossum, mgr.; 1,400 met.; no. gen.; pur. 20,600,000 kWh; rev. $1,343,050. (1892)*

ALEXANDRIA Light & Power, Bd. of Pub. Wks., 316 Fillmore St., 56308, 612/763-6501, Earl La Maack, gen. mgr.; 6,111 met.; gen. 9,245 kW dual-fuel, (eng.), 41,710 kWh; pur. 131,984,032 kWh; rev. $3,444,214. (1889)*

ALPHA Elec. Dept., Box 97, 56111, 507/847-3557, Leonard G. Tauer, supt.; 159 met.; no gen.; sales 1,267,970 kWh; rev. $66,503. (1915)

ALVARADO Mun. Elec. Dept., 56710, 218/965-4827, Herb Monk, supt.; 187 met.; rev. $42,000.

ANOKA, City of, Elec. Util., 215 Harrison St., 55303, 612/421-6630, Lewis Bradford, dir. of util.; 7,701 met.; no gen.; pur. 139,893,600 kWh; rev. $6,699,220. (1901)*

ARLINGTON Elec. & Water Dept., 312 W. Alden St., 55307, 612/964-2378, Russell Good, supt.; 775 met.; no gen.; pur. 11.2 million kWh; rev. $468,150.

AUSTIN Utils., 500 Fourth Ave., N.E., 55912, 507/433-8886, Norman E. Dietrich, gen. mgr.; 11,180 met.; gen. 35,000 kW, steam, 116,054,900 kWh; pur. 80,100,000 kWh; rev. $10,757,204. (1900)*

BAGLEY Pub. Utils. Comm., Box M, 56621, 218/694-2300, Bernie Stavig, supt.; 530 met.; no gen.; pur. 13.5 million kWh; rev. $325,501. (1907)

BARNESVILLE, City of, Elec. Utils., Box 295, 56514, 218/354-2292, H. Gilbertson, supt.; 1,164 met.; no gen.; pur. 15,985,535 kWh; rev. $588,669. (about 1898)*

BAUDETTE Light & Water Dept., Box 548, 56623, 218/634-2432, Darrell Nelson, supt.; 652 met.; gen. 1,936 kW eng., 168,070 kWh; pur. 7.2 million kWh; rev. $345,000.

BENSON, City of, 1411 Pacific Ave., 56215, 612/843-4775, Edward J. Shukle Jr., city mgr.; 1,907 met.; no gen.; pur. 23,737,565 kWh; rev. $670,539. (1902)*

BIGELOW City of, 56117, 507/683-2682, Paul Marco, city clerk; 148 met.; no gen.; pur. 1,585,200 kWh; rev. $66,602.

BIWABIK Water, Light, Power & Bldg. Comm., Box A, 55708, 218/865-6740, Jeffrey M. Jansen, supt.; 643 met.; no gen.; pur. 5,673,818 kWh; rev. $439,181. (1904)

BLOOMING PRAIRIE Pub. Utils., Box 55, 146 Third Ave. SE., 55917, 507/583-6683, George Curtin, supt.; 898 met.; gen. 3,678 kW oil-fired eng., 66,480 kWh; pur. 11,896,800 kWh; rev. $523,885. (1931)*

BLUE EARTH Light & Water Dept., 118 E. Sixth St., 56013, 507/526-2191, Les Madsen, gen. mgr.; 2,053 met.; gen. 8,500 kW, 3,500 kW steam, 4,000 kW eng., 1,891,300 kWh, pur. 34,587,700 kWh; rev. $2,102,394. (1895)*

BRAINERD Water & Light Dept., City Hall, 501 Laurel St., Box 373, 56041, 218/829-8726, Walter Sjolund, supt., 5,845 met.; no gen.; pur. 99,691,000 kWh; rev. $6,037,612. (1892)

BRECKENRIDGE Pub. Utils., 203 North 5th St., Box 410, 56520, 218/643-4681, Ken Twito, supt., 1,700 met.; no gen.; pur. 31,881,651 kWh; rev. $889,215. (1907)*

BREWSTER Elec. Light & Power Plant, 56119, 507/842-5963, Kenneth Kluver, supt.; 300 met.; no gen.; pur. 2.4 million kWh.

BROWNTON Mun. Elec. Light Dept., City Hall, 528 2nd St. N., 55312, 612/328-5318, Carl Wachter, mayor; 342 met.; no gen.; pur. 4,152,800 kWh; rev. $185,214. (1921)

BUFFALO, City of, Mun. Elec. Dept., 212 Central Ave., 55313, 612/682-1181, Merton Auger, city adm.; 2,048 met.; no gen.; pur. 33,844,113 kWh; rev. $1,634,473. (1921)*

BUHL Water & Light Dept., Box 704, 55713, 218/258-3217, Mike Miklovich, supt.; 500 met.; pur. 4,333,003 kWh; rev. $252,321.

CALEDONIA Mun. Light & Water Dept., 231 E. Main St., 55921, 507/724-3450, R. Schmitz, supt.; 1,027 met.; no gen.; pur. 10.6 million kWh; rev. $232,000. (1903)

CEYLON Water & Light Dept., 56121, 507/632-4635, William F. Ditz, city clerk/treasurer; 247 met.; no gen.; pur. 79,987 kWh; rev. $25,726.

CHASKA Pub. Utils., 205 E. Fourth St., 55318, 612/448-2425, Daniel J. Boegeman, supt.; 2,812 met.; no gen.; pur. 59,606,400 kWh; rev. $2,852,050. (approx. 1905)

DELANO Mun. Utils., 11 W. Bridge Ave., 55328, 612/972-3211, Milton Voltin, supv.; 941 met.; gen. 4,781 kW eng., 230,767 kWh; pur. 16,943,551 kWh; rev. $788,798. (1932)*

DETROIT LAKES Pub. Util. Dept., 1025 Roosevelt Ave., Box 647, 56501, 218/847-7609, Greg Sherman, supt.; 4,386 met.; no gen.; pur. 84,788,496 kWh; rev. $2,797,533. (1902)*

DUNNELL, Village of, 56127, 507/695-2518, Laird Moore, city clerk; 120 met.; no. gen.; rev. $47,295. (1920s)

EAST GRAND FORKS Water & Light Dept., Box 322, 56721, 218/773-1163, Jerry Neppel, elec. supvr.; 3,700 met.; no gen.; pur. 86,036,530 kWh; rev. $2,570,440. (1906)

EITZEN Pub. Utils., 55931, 507/495-3259, J. Anthony Stokman, clerk-treas.; 125 met.; no gen.; pur. 1,693,600 kWh; rev. $89,752. (est. 1946)

ELBOW LAKE Mur. Elec., Box 1079, 56531, 218/685-4483, Harland D. Martinson, sec.-power comm.; 957 met.; no gen., pur. 14,193,867 kWh; rev. $538,634. (1965)*

ELK RIVER Mun. Utils., 322 King Ave., 55330, 612/441-2020, Edson C. Stansfield, utils. supt.; 2,447 met.; gen. 1,100 kW oil-fired, 8,000 kW dual-fuel, 29,000 kWh; pur. 44,270,000 kWh; rev. $2,309,840. (1945)

ELY Water & Light Dept., 209 E. Chapman St., 55731, 218/365-3224, Albin Mavetz, supt.; 2,692 met.; no gen.; pur 27,141,840 kWh; rev. $1,353,716.

FAIRFAX Mun. Utils., 206 S. First St., 55332, 507/426-7255, Russell N. Mortenson, supt.; 696 met.; no gen.; pur. 11,378,571 kWh; rev. $208,116.

FAIRMONT Pub. Utils. Comm., 117 E. First St., Box 751, 56031, 507/235-6691, Douglas E. Cameron II, mgr.; 5,651 met.; gen. 36,000 kW, 24,000 kW steam, 12,000 kW dual-fuel, 128,242,400 kWh; pur. 52,210,000 kWh; rev. $6,631,104. (1902)*

FOSSTON Mun. Light & Power, 220 E. First St., 56542, 218/435-1737, Russell W. Earls, supt. pub. wks.; 709 met.; gen. 954 kW eng., pur. 16.1 million kWh; rev. $380,310. (1941)

GILBERT Water & Light Dept., City Hall, Broadway, 55741, 218/741-9617, Hazel Griffith, city clerk; 990 met.; no gen.; pur. 10,083,312 kWh; rev. $580,941. (1908)

GLENCOE Mun. Elec. Plant, 305 11th St. East, 55336, 612/864-5184, Joe Adrian, mgr.; 1,999 met.; gen. 21,156 kW eng., 1,572,2[illegible] kWh; pur. 46,395,700 kWh; rev. $2,574,013. (1938)*

GRAND MARAIS Pub. Util. Comm., Box 83, 55604, 218/387-1848, Glenn R. Bergstrom, mgr.; 900 met.; gen. 4,034 kW eng., 2.3 million kWh; pur. 8.7 million kWh; rev. $722,000. (1949)

GRAND RAPIDS Pub. Utils. Comm., Box 658, 55744, 218/326-3493, Raymond Litchke, gen. mgr.; 4,741 met.; no gen.; pur. 93,863,800 kWh; rev. $5,240,591. (1910)

GRANITE FALLS Mun. Power, 885 Prentice, 56241, 612/564-4430, Richard A. Velier, city mgr.; 1,500 met.; gen. 500 kW hydro, 2 million kWh; pur. 19 million kWh; rev. $800,000. (1890)

GROVE CITY Elec. Dept., City Hall, Box 84, 56243, 612/587-3351, Lois Turgeon, city clerk; 307 met.; no gen.; rev. $90,000.

HALSTAD Mun. Utils., 56548, 218/456-2128, Daniel R. Duklet, supt. of utils.; 329 met.; gen. 1,062 kW oil-fired eng., 4,250 kWh; pur. 8,630,642 kWh; rev. $323,302 (1939)

HARMONY Water & Light, Box 488, 55939, 507/886-8122, Norman Johnson, supt., pb. wks.; 533 met.; no gen.; pur. 6,528,000 kWh.

HAWLEY Pub. Utils., 56549, 218/483-3331, L. L. Quam, city clerk; 746 met.; gen. 1,533 kW oil-fired eng., not in use; pur. 11,949,886 kWh; rev. $379,152. (1909)

HENNING Power & Light, 56551, 218/583-2402, Filmore Trites, mayor; 437 met.; no gen.; pur. 7,351,660 kWh; rev. $242,926. (1956)*

HIBBING Pub. Utils. Comm., Box 249, 55746, 218/263-7515, Karl E. Marietta, gen. mgr.; 7,860 met.; gen. 19,000 kW steam, 51,702,860 kWh; pur. 59,080,000 kWh; rev. $7,226,394. (1895)*

HUTCHINSON Utils. Comm., 225 Michigan St., 55350, 612/587-4746, Rufus Alexander, gen. mgr.; 4,450 met.; gen. 56,800 kW, 16,107,000 kWh; pur. 138,483,000 kWh; rev. $7,985,054. (1936)*

JACKSON Mun. Power Plant, 504 Second St., 56143, 507/847-4410, William R. Holmes, supt.; 1,835 met.; gen. 900 kW oil eng., sales 27,642,235 kWh; rev. $928,536. (1913)*

JANESVILLE Mun. Utils., 219 N. Main, 56048, 507/234-5112, Alan Junkers, plant supt., Clifford Coonrod, line supt.; 860 met.; gen. 3,176 kW dual-fuel eng., 773,000 kWh; pur. 6.7 million kWh; rev. $408,444. (1939)*

KANDIYOHI, City of, 56251, 612/382-6110, William Schroeder, supt.; 215 met.; no gen.; sales 3,695,746 kWh; rev. $101,166.

KASOTA City of Elec., Box 218, 56050, 507/931-3290, J. Neubert, supt.; 236 met.; no gen.; pur. 2,256,343 kWh; rev. $110,595.

KASSON Municipal, 122 W. Main St., 55944, 507/634-7071, Keith Houston, util. supt.; 1,303 met., no gen.; pur. 11,570,400 kWh; rev. $584,647. (1937)

KEEWATIN Pub. Utils. 55753, 218/778-6544, Matt Draskovich, supvr.; 650 met.; no gen.; pur. 5,830,014 kWh; rev. $390,722. (1927)

KENYON Mun. Utils., 713 Second St., 55946, 507/789-6573, Lorry Wille, supt.; 783 met.; no gen.; pur. 9,792,000 kWh; rev. $487,509. (1932)

LAKE CITY Utils., 205 West Center St., 55041, 612/345-5383, James Biggar, supt.; 2,220 met.; no gen.; pur. 60,604,800 kWh; rev. $2,645,951. (1907)

LAKE CRYSTAL Pub. Util., 100 E. Robinson St., 56055, 507/726-2538, Alden Sutherland, mgr.; 900 met.; gen. 4,195 kW dual-fuel, eng., pur. 9,847,615 kWh; rev. $567,941. (1937)

LAKEFIELD Pub. Utils., 56150, 507/662-6363, Richard Thompson, 984 met.; gen. 2,066 kW gen. 2,066 kW eng.; sales 10,083,212 kWh; rev. $385,942. (1900)*

LAKE PARK Pub. Utils., 56554, 218/238-5532, George Mattson, supt.; 302 met.; no gen.; pur. 2.7 million kWh; rev. $76,000.*

LANESBORO Pub. Utils., Box 333, 55949, 507/467-3222, Larry Peterson, elec. oper.; 464 met., gen. 1,296 kW, 56,710 kWh; pur. 4.3 million kWh; rev. $214,589. (1902)

LE SUEUR Mun. Utils., 228 N. Main, 56058, 612/665-3338, Mervin Hentges, supt.; 1,785 met.; no gen. pur. 38,976,000 kWh; rev. $1,701,807. (1934)

LITCHFIELD Pub. Utils., 421 W. Third St., 55355, Box 521, 612/693-3277 Dallas E. Nelson, supt.; 2,712 met.; gen. 11,120 kW, 3,000 kW coal, 3,980 kW oil-fired, 4,140 kW dual-fuel, 291,000 kWh; pur. 77,916,789 kWh; rev. $2,161,929. (1889)*

LUVERNE Mun. Utils., Box 348, 56156, 507/283-2388, 203 E. Main St., Walter M. Johnson, city admin.; 2,077 met.; gen. 7,422 kW, 3,000 kW steam, 4,422 kW eng.; pur. 47,886,557 kWh; rev. $1,181,265. (1893)*

MABEL, City of, 55954, 507/493-5299, Jimmy Narum, city clerk; 450 met.; no gen.; pur. 164,500 kWh; rev. $184,000. (1905)

MADELIA Mun. Light & Power, 24 Abbott Ave., S.W., 56062-0026, 507/642-8803, Steve Moses, supt.; 1,030 met.; gen. 8,296 dual-fuel kW eng., 141,000 kWh; pur. 21,157,663 kWh; rev. $942,041. (1939)*

MADISON Mun. Utils., 109 7th Ave., 56256, 612/598-3239, Harold Hodge, supt.; 1,144 met.; no gen.; pur. 19,198,933 kWh; rev. $640,419. (1898)*

MARSHALL Mun. Utils., 113 S. Fourth St., 56258, 507/532-2213, E. Al Rome, gen. mgr.; 4,593 met.; gen. 22,000 kW, 18,500 kW comb. turbine, 3,500 kW oil-fired eng.; 85,400 kWh; pur. 141,438,570 kWh rev. $3,469,576. (1894)*

MELROSE Pub. Utils., 225 First St. N.E., 56352, 612/256-4278, Clarence Greeno, util. supt.; 1,512 met.; gen. 2,111 kW oil-fired, 6,000 kW dual-fuel, 179,000 kWh; pur. 41,631,784 kWh; rev. $1,247,641. (1905)*

MOORHEAD Pub. Service Dept., 500 Center Ave., Box 779, 56560, 218/299-5400, Thomas H. McCauley, supt.; 11,367 met.; gen. 44,000 kW, 34,000 kW coal, 10,000 kW oil, (comb-turb.); 15,000 kWh; pur. 277,209,721 kWh; rev. $7,030,923. (1895)*

MOOSE LAKE Water & Light Comm., Box 418, 55767, 218/485-4100, Warren G. Weske, supt.; 775 met.; gen. 4,160 kW dual-fuel eng., 16,600 kWh; pur. 12,142,306 kWh; rev. $784,497. (1933)

MORA Mun. Elec. Util., 16 N. Lake St., 55051, 612/679-1451, Virgil C. Anderson, supt.; 1,516 met.; gen. 15,155 kW dual-fuel, 820,500 kWh; pur. 45,898,000 kWh; rev. $2,078,739. (1934)*

MOUNTAIN IRON Water & Light, Box 505, 55768, 218/735-8267, Richard Anderson, supt.; 850 met.; no gen.; pur. 10,399,200 kWh; rev. $777,750. (1919)

MOUNTAIN LAKE Mun. Utils., 925 Second Ave., 56159, 507/427-2633, Charles Utley, supt.; 994 met.; gen. 5,442 kW eng., 15 million kWh; pur. none; rev. $494,000. (1935)

NASHWAUK Pub. Utils. Comm., 315 Third St., 55769, 218/885-2522, Louis E. Legueri, supt.; 601 met.; no gen.; pur. 6 million kWh; rev. $295,542. (1910)

NEWFOLDEN Elec. Dept., 56738, 218/874-5215, Martin Smeby, supt.; 213 met.; no gen.; rev. $60,000.

NEW PRAGUE Utils., 300 E. Main St., 56071, 612/758-4447, Donald E. Meyer, supt.; 1,403 met.; gen. 18,200 kW, 16,650 kW dual-fuel eng., 1,000 kW oil-fired eng., 550 kW gas-fired; 778,000 kWh; pur. 41,224,607 kWh; rev. $2,384,537. (1928)

NEW ULM Pub. Utils., 310 First North St., 56073, 507/354-4182, Dave Peterson, supt.; 5,985 met.; gen. 51,000 kW, 21,000 kW coal, 6,000 kW gas, 24,000 kW comb. turbine; 96,468,200 kWh; pur. 25,891,000 kWh; rev. $7,036,748. (1902)*

NIELSVILLE Utils., 56568, Darlene Ruthenberg, city clerk; 75 met.; no gen.; pur. 725,064 kWh; rev. $21,326.

NORTH BRANCH Water & Light, 712 Maple St., Box 176, 55056, 612/674-7100, Richard C. Anderson, supt.; 774 met.; gen. 2,365 kW dual-fuel eng.; 891,000 kWh; pur. 11,819,000 kWh; rev. $649,326. (1941)*

NORTH ST. PAUL, 2526 E. 7th Ave., 55109, 612/770-4488, Ron

Schuler, dir., elec. utils.; 5,117 met.; no gen.; pur. 52,578,400 kWh; rev. $2,707,021. (1898)*

OLIVIA City of, 1009 W. Lincoln Ave., 56277, 812/523-2361, Leon O. Nemitz, supt.; of Light Dept.; 1,230 met.; no gen.; pur. 18,408,610 kWh; rev. $396,288.

ORTONVILLE Water & Light Dept., 315 Madison Ave., 56278, 612/839-3428, Arthur Hamann, supt. of util.; 1,791 met.; no gen.; pur. 26,912,485 kWh; rev. $848,167. (1905)*

OWATONNA Pub. Utils., 208 S. Walnut Ave., Box 800, 55060, 507/451-2480, David M. Martin, gen. mgr.; 7,867 met.; gen. 49,000 kW, 34,500 kW steam, 14,500 kW comb. turbine; 39,270,200 kWh; pur. 91,627,500 kWh; rev. $7,093,000. (1924)*

PETERSON Elec. System, 55962, 507/875-2240, Bill Grindland Jr.; 125 met.; no gen.; pur. 1.5 million kWh; rev. $67,337.

PIERZ Elec. Dept., 56364, 612/468-6471, Harold M. Mayor, Elec. Comm., 523 met.; no gen.; pur. 5,734,500 kWh; rev. $288,775.

PRESTON Pub. Utils. Comm., 55965, 507/765-4541, Fred Nagel, elec. supt.; 794 met.; gen. 3,895 kW dual-fuel; 71,740 kWh; pur. 9,674,362 kWh; rev. $506,592. (1896)

PRINCETON Pub. Utils. Comm., 907 1st St., 55371, 612/389-2252, Harold R. Steppuhn, supt.; 1,564 met.; gen. 1,500 kW oil, 6,150 kW dual-fuel (eng.), 807,200 kWh; pur. 26,663,559 kWh; rev. $1,232,468. (1938)*

PROCTOR Pub. Utils. Comm., 210 Third St., 55810, 218/624-4055, Joseph Knowlton, plant supt.; 1,310 met.; no gen.; pur. 13,951,000 kWh; rev. $873,006. (1941)

RANDALL Mun. Util., City Hall, 56475, 612/749-2159, Larry Sharon, clerk; 240 met.; no gen.; pur. 2.6 million kWh; rev. $136,000.

REDWOOD FALLS Pub. Utils Comm., 333 S. Washington, Box 48, 56283, 507/637-5789, Curtis G. Weber, supt.; 2,367 met.; gen. 9,615 kW, 1,315 kW oil-fired eng., 7,800 kW dual-fuel, 500 kW hydro; 3,384,818 kWh; pur. 46,263,094 kWh; rev. $ 1,579,255. (1946)*

ROCHESTER Pub. Utils., Box 6057, 55903, 507/285-8970, R. John Miner, gen. mgr.; 26,081 met.; gen. 135,400 kW 98,400 kW coal, 35,000 kW oil (comb. turbine), 2,000 kW hydro, 436,221,000 kWh; pur. 116,345,000 kWh; rev. $23,143,140. (1892)*

ROSEAU Mun. Utils., 100 Second Ave., Box 307, 56751, 218/463-2351, Dale Drown, supt.; 1,400 met.; gen. 3,150 kW oil-fired eng., 29,800 kWh; pur. 19,224,000 kWh; rev. $1,329,000.

ROUND LAKE City of, Box 72, 56167, 507/945-8127, Gary Jurgensen, supt.; 245 met.; no gen.; pur. 53,627,000 kWh; rev. $302,031.

RUSHFORD, City of, 205 South Elm St., 55971, 507/864-2444, Gordon R. Hatleli, supt. pub. works; 751 met.; no gen.; pur. 9 million kWh; rev. $427,385.

RUSHMORE Elec. Dept., 56168, 507/478-4352, Alpharetta Palaschak, city clerk; 204 met.; no gen.; rev. $36,000.

ST. CHARLES Light & Water Dept., 1242 Whitewater Ave., 55972, 507/932-3020, Gus Ihrke, pub. wks. supt.; 1,094 met.; no gen.; pur. 14,276,829 kWh; rev. $724,268.

ST. JAMES Public Utils., 120 Armstrong Blvd., S., 56081, 507/375-3121, ext. 22, Craig Christiansen, supt. of pub. wks.; 2,028 met.; no gen.; pur. 30.1 million kWh; rev. $830,791.*

ST. PETER Mun. Utils., 227 S. Front St., Box 299, 56082, 507/931-3540, James B. Sandeen, supt.; 2,920 met.; no gen.; pur. 53,054,400 kWh; rev. $2,433,699. (1891)*

SARGEANT Elec. Light Dept., Box 21, 55973, 507/584-6886, Mrs. Herbert Martin, clerk; 35 met.; no gen.; pur. 800,000 kWh.

SAUK CENTRE Water, Light & Power Comm., 101 S. Main St., 56378, 612/352-2300, Duane Rubedor, supt.; 1,649 met.; no gen.; sales 25,336,970 kWh; rev. $704,557. (1916)*

SHAKOPEE Pub. Utils. Comm., 1030 E. Fourth Ave., 55379, 612/445-1988, Louis Van Hout, util. mgr.; 4,025 met.; no gen.; pur. 69,894,400 kWh; rev. $3,070,100. (1900)*

SHELLY Mun. Light Dept., Box 126, 56581, 218/886-8355, Dean Denison, mayor; 134 met.; no gen.; pur. 2,426,400 kWh; rev. $72,202.

SLEEPY EYE Pub. Utils., 130 Second Ave., N.W., 56085, 507/794-4371, D. H. Logue, supt.; 1,674 met.; gen. 5,372 kW, 3,250 kW steam, 2,122 kW eng.; 2,987,488 kWh; pur. 23,380,037 kWh; rev. $1,256,386. (1895)*

SPRINGFIELD Pub. Utils. Comm., 14 N. Marshall Ave., 56087, 507/723-5290, Menno Mennenga, supt.; 1,115 met.; gen. 7,000 kW coal, 1.6 million kWh; pur. 14.8 million kWh; rev. $927,500. (1894)

SPRING GROVE Mun. Util., 55974, 507/498-5221, Wesley Kjome, mgr.; 590 met.; no gen.; pur. 5.9 million kWh; rev. $180,000.

SPRING VALLEY Pub. Utils. Comm., 104 S. Section Ave., 55975, 507/346-7622, Robert G. Carson, supt.; 1,369 met.; gen. 8,376 kW, 7,536 kW dual-fuel, 840 kW oil-fired eng., 212,500 kWh; pur. 15,025,200 kWh; rev. $829,035. (1935)*

STAPLES Mun. Water & Light Dept., 611 Iowa Ave., 56479, 218/894-2550, N. G. Schroeder, city adm.; 1,473 met.; no gen.; pur. 18,235,900 kWh; rev. $1,024,980.

STEPHEN City of, Box 28, 56757, 218/478-3614, Leonard Bazey, supt.; 390 met.; no gen.; pur. 7,796,666 kWh; rev. $282,197. (1910)

THIEF RIVER FALLS Water & Light Dept., Box 528, 56701, 218/681-5816, John T. Anderson, supt.; 3,873 met.; gen. 5,900 kW, 5,400 kW oil-fired eng., 500 kW hydro, 3,844,100 kWh; pur. 77,790,435 kWh; rev. $2,751,345. (1901)*

TRUMAN Mun. Light Plant, 118 N. First Ave., Box 147, 56088, 507/776-6501, Erhardt F. Grefe, mgr.; 630 met.; gen. 4,277 kW dual-fuel, 453,600 kWh; pur. 8,212,100 kWh; rev. $479,621. (1938)*

TWO HARBORS City of, 610 Second Ave., 55616, 218/834-4 .86, John D. Olsvik, city clerk; 1,688 met.; gen. 15,400 kWh (diesel); pur. 19,026,600; rev. $1,221,815. (1909)

TYLER Mun. Light & Power Dept., Box 398, 56178, 507/247-3430, Edward L. Ericson, city admin.; 929 met.; gen. 1,154 kW eng., 8,390 kWh; pur. 3.9 million kWh; rev. $158,000.

VIRGINIA Dept. of Pub. Utils., 55792, 218/741-0740, Charles E. Fricke, gen. mgr.; 5,934 met.; gen. 35,000 kW coal, 79,511,000 kWh; pur. 16,164,000 kWh; rev. $5,192,146. (1913)*

WADENA Light & Water Dept., 104 N. Jefferson, 56482, 218/631-1813, Russell F. Berg, supt.; 2,287 met.; no gen.; pur. 44,594,000 kWh; rev. $1,277,188. (1897)*

WARREN, City of, 126 W. Johnson Ave., 56762, 218/745-5343, Ralph H. Plencner, supt.; 943 met.; gen. 2,161 kW oil-fired, 11,500 kWh; pur. 17,558,497 kWh; rev. $609,433. (1902)

WARROAD Light & Power, Box 50, 56763, 218/386-1454, Harold P. Olimb, city clerk; 570 met.; no gen.; pur. 15,426,000 kWh; rev. $540,000.

WASECA Water & Light Dept., 508 S. State St., 56093, 507/835-3890, Mark Sather, city mgr.; 3,525 met.; no gen.; pur. 47,345,200 kWh; rev. $2,209,579. (1894)*

WELLS Pub. Utils., 101 First St., S.E., 56097, 507/553-3119; Ray Wigern, supt.; 1,388 met.; no gen.; pur. 16,837,000 kWh; rev. $820,091. (1894)*

WESTBROOK Mun. Light & Power, Box 296, 56183, 507/274-6712, Dennis Jutting, supt.; 526 met.; no gen.; pur. 8,039,918 kWh; rev. $260,671. (1938)*

WHALEN Electric Dept., 55986, 507/467-2326, Jerry Olson, mayor; 58 met.; no gen.; pur. 474,400 kWh.

WILLMAR Mun. Utils. Comm., 704 SW Litchfield Ave., Box 937, 56201, 612/235-4422, C. Ted Nelson, gen. mgr.; 7,215 met.; gen. 21,000 kW steam, 86,002,920 kWh; pur. 56,899,440 kWh; rev. $6,231,215. (1895)*

WINDOM City of, 444-9th St., 56101, 507/831-2363, Dennis Purrington, elec. supt.; 2,127 met.; gen. 3,000 kW comb. turbine, 9,000 kWh; pur. 35,369,647 kWh; rev. $1,086,977. (1895)*

WINTHROP Mun. Utils., 106 1st St. E., 55396, 507/647-5308, Del Thompson, supt.; 750 met.; no gen.; pur. 13,798,600 kWh; rev. $436,886.

WORTHINGTON, City of, Pub. Utils., 303 Ninth St., Box 111, 56187, 507/376-6131, Donald E. Habicht, dir. of utils.; 4,446 met.; no gen.; pur. 95,766,150 kWh; rev. $2,863,407. (1895)*

MISSISSIPPI

(Systems designated "TVA" are distributors of Tennessee Valley Authority power and purchase all of their power from TVA.)

ABERDEEN Pub. Utils., Box 817, 39730, 601/369-4731, Ralph T. Byars, mgr.; pur. 138,456,000 kWh. (TVA) (1939)

AMORY Elec. & Water Dept., Box 266, 38821, 601/256-5633, Billie B. Wright, mgr.; 3,710 met.; pur. 75,611,520 kWh; rev. $3,400,000. (TVA) (1934)

CANTON Mun. Utils., Box 114, 39046, 601/859-2921, John M. Wallace, gen. mgr.; 4,579 met.; no gen.; pur. 75.8 million kWh; rev. $3,094,985. (1896)*

CENTREVILLE, 39631. (Town owns distribution system; leased to Mississippi Power & Light Co. until 1985.)

CLARKSDALE Water & Light Dept., Box 940, 38614, 601/627-4761, Lewis L. Wilkins, supt.; 7,889 met.; gen. 63,000 kW, 25,000 kW gas, 12,500 kW gas turbine, 25,500 comb. cycle, 65,528,170 kWh; pur. 72,526,000 kWh; rev. $8,923,141. (1900)*

COLLINS, City of, Box 326, 39428, 601/765-4491, Mary K. Burnham, Clerk; 961 met.; sales 11,729,194; rev. $880,387.

COLUMBUS Light & Water Dept., Box 949, 39701, 601/328-7192, Reynolds R. Ridgley, gen. mgr.; 11,782 met.; pur. 363,798,368 kWh; rev. $15,675,029. (TVA) (1939)*

DURANT Mun. Utils., 101 West Mulberry, Box 272, 39063, 601/653-3231, R. C. Umphers, supt.; 1,143 met.; no gen.; pur. 16 million kWh; rev. $895,000. (1930)

FAYETTE Light & Water Plant, 36069. (Leased to Mississippi Power & Light Co.)

GREENWOOD Utils., 101 Wright Place, Box 866, 38930, 601/453-7234, C. M. Mathews, mgr.; 9,974 met.; gen. 40,150 kW coal, 13,500 kW gas (steam turbine), 11,250 kW gas (combus. turbine), 116,088,948 kWh; pur. 97.3 million kWh; rev. $11,862,907. (1904)*

HOLLY SPRINGS, City of, Util. Dept., Box 520, 38635, 601/252-4411, I. W. Carpenter, mgr.; 8,101 met.; sales 153,717,886 kWh; rev. $6,715,407. (TVA) (1890)

ITTA BENA, City of, Box 563, 38941, 601/254-6212, James Peeples, supvr.; 1,090 met.; no gen.; pur. 8,054,610 kWh; rev. $655,754.*

KOSCIUSKO Water & Light Plant, 204 West Jefferson St., 39090-3686, 601/289-1141, Charles E. Burchfield, supt.; 3,127 met.; no gen.; pur. 46,308,885 kWh; rev. $2,591,656. (1919)

LELAND, City of, Drawer 271, 38756, 601/686-2093, Mickey Fratesi, mgr.; 2,504 met.; no gen.; pur. 28,384,000 kWh; rev. $1,683,187.*

LOUISVILLE Elec. System, Box 71, 39339, 601/773-7147, Tommy Lee Kirkpatrick, mgr.; 3,255 met.; pur. 118,632,564 kWh; rev. $5,360,950. (TVA) (1939)

MACON Elec. Dept., Pulaski St., Box 146, 39341, 601/726-5251, H. L. Ledbetter, supt.; 1,216 met.; pur. 23,427,718 kWh; rev. $930,419. (TVA) (1927)

NEW ALBANY Elec. Dept., 100 Cleveland St., Box 236, 38652, 601/534-5021, Harold G. Smith, mgr.; 7,720 met.; pur. 161,962,624 kWh; rev. $7,432,359. (TVA) (1934)*

OKOLONA Elec. Dept., Box 111, 38860, 601/447-5482, Frank Westbrook, operating supt.; 3,772 met.; pur. 68.1 million kWh; rev. $1,889,509. (TVA) (1935)

OXFORD, City of, Elec. Dept., Box 827, 38655, 601/236-1310, Tom H. Landrum, supt.; 4,328 met.; sales 104,731,328 kWh; rev. $4,371,945. (TVA) (1896)

PHILADELPHIA Utils., Box 88, 39350, 601/656-1121, John Burt, mgr.; 3,348 met.; pur. 93,229,920 kWh; rev. $4,150,927. (TVA) (1939)*

STARKVILLE Elec. Dept., Box 927, 39759, 601/323-3133, Clay R. Campbell, gen. mgr.; 6,966 met.; no gen.; pur. 210.7 million kWh; rev. $8,175,683. (TVA) (1939)

TUPELO, Water & Light Dept., Box 588, 38802, 601/842-6460, Charles F. Hutchison, mgr.; 11,748 met.; no gen.; pur. 386,767,145 kWh; rev. $18,009,421. (TVA) (1900)

WATER VALLEY Elec. Dept., 38965, 601/473-2770, Vernon Chambers, supt.; 1,820 met.; pur. 48.7 million kWh; rev. $1,367,361. (TVA) (1938)

WEST POINT Elec. System, 331 Washington St., Box 1117, 39773, 601/494-1432, Dewel Brasher, supt.; 3,753 met.; pur. 124,954,442 kWh; rev. $5,506,585. (TVA) (1958)

WOODVILLE Light, Water & Gas Plant, 39669. (Leased to Mississippi Power & Light Co.)

YAZOO CITY Pub. Service Comm., 125 W. Commercial St., 39194, 601/746-3741, C. E. Lingenfelder, mgr.; 5,727 met.; gen. 31,500 kW, 652 kW oil and 53,906 kW gas (steam turbine), 15,227 kW gas; 69,785,000 kWh; pur. 15,033,300 kWh; rev. $5,611,941. (1903)*

MISSOURI

ALBANY Light & Water, 106 E. Clay, 64402, 816/726-3510, Gene Wilson, city admin.; 1,029 met.; gen. 4,165 kW oil-fired eng.; 325,000 kWh; pur. 13.2 million kWh; rev. $639,000.

BETHANY Mun. Water & Light, Box 344, 64425, Samuel C. Davis, elec. supt.

BUTLER Mun., 101 N. Lyons, 64730, 816/679-4013, Don Edmonds, supt., 2,216 met.; gen. 6,125 kW oil (comb. turbine), 371,998 kWh; pur. 20,000,000 kWh; rev. $1,599,787. (1880)

CABOOL City of, 618 Main St., 65689, 417/962-3136, Noah January, city admin.; 970 met.; pur 20,239,979 kWh; rev. $947,767.

CALIFORNIA Bd. of Pub. Wks., 103 E. Versailles, 65018, 314/796-4591, Bill J. Gilbert, supt.; 1,718 met.; no gen.; pur. 21,089,859 kWh; rev. $1,112,328. (1936)

CAMERON, City of, 205-09 N. Main, 64429, 816/632-2177, Willard Peterson; 2,191 met.; gen. 2,550 kW oil-fired eng.; 366,000 kWh; pur. 29,927,400 kWh; rev. $1,310,225. (1924)

CAMPBELL Mun. Light Dept., 202 W. Grand, 63933, J.P. Slankard, supt.

CARROLLTON Mun. Utils, 707 S. Main St., Box 460, 64633, 816/542-0360, L.L. Anderson, supt.; 2,418 met.; gen. 704 kW oil, 21,915 kW dual-fuel (eng.), 3,476,578 kWh; pur. 43,875,200 kWh; rev. $2,755,703. (1941)*

CARTHAGE, Bd. of Pub. Wks., Drawer 611, 64836, 417/358-5904, David R. Clark, gen. supt.; 5,958 met.; gen. 37,500 kW dual-fuel, 15,813,000 kWh; pur. 120,633,000 kWh; rev. $7,802,000. (1898)*

CENTRALIA, City of, 114 S. Rollins St., 65240, 314/682-2139, Alfred J. Figuly, city admn.; 1,645 met.; no gen.; pur. 21,506,856 kWh; rev. $893,164. (1916)

CHILLICOTHE Mun. Utils, 715 Washington St., Box 807, 64601, 816/646-1664, Keith D. Beardmore, gen. mgr.; 4,643 met.; gen. 13,000 kW coal (steam turbine), 25,647,000 kWh; pur. 57,501,000 kWh; rev. $4,062,601. (1911)*

CLARKSVILLE Utils., 111 Howard, Box 528, 63336, 314/242-3553, Kenneth Shuford, supt.; 356 met.; no gen.; pur. 3,616,615; rev. $210,058. (1939)

COLUMBIA, Water and Light Dept., Box N, 65205, 314/874-7325, Richard E. Malon, dir.; 22,221 met.; gen. 38,500 kW coal, 35,000 kW gas, 12,500 gas-fired, 114,327,000 kWh; pur. 388,867,000 kWh; rev. $27,940,000. (1904)*

CRANE City of, 120 N. Commerce, Box 17, 65633, 417/723-5990, Jack Swearingen, city supt.; 602 met.; no gen.; pur. 8,943,200 kWh; rev. $488,899. (1963)

CUBA Mun. Utils, 65453, 314/885-7958, Paul D. Dickens, supt.

EL DORADO SPRINGS Bd. of Pub. Wks., 127 W. Spring, 64744, 417/876-2145, Jim Grisham, city supt.;1,943 met.; no gen.; pur. 30,086,400 kWh; rev. $1,164,235. (1939)

FARMINGTON Light & Power, 110 W. Columbia, 63640, 314/756-2620, Ronald W. Sheppard, supt.; 3,652 met.; no gen.; pur. 53,673,000 kWh; rev. $2,222,006. (1900)*

FAYETTE Water & Light Dept., 117 S. Main St., 65248, 816/248-2214, Frank Mansfield, supt.; 1,200 met.; gen. 3,661 kW eng.

FREDERICKTOWN City Light & Power, 120 W. Main, 63645, 314/783-2154, Owen J. Slinkard, mgr.; 2,004 met.; no gen.; pur. 27,662,964 kWh; rev. $1,194,919. (1948)*

FULTON Lighting & Power System, Box 142, 65251, 314/642-6655, J.E. Bates, gen. supt.; 4,169 met.; gen. 32,550 kW, 18,000 kW gas turbine, 14,550 kW dual-fuel, 50.4 million kWh; pur. 48.5 million kWh; rev. $3,954,605. (1895)*

GALLATIN Mun. Utils., 112 East Grand, 64640, 816/663-2011, C.R. Bashford, supt. utils.; 1,039 met.; gen. 4,500 kW oil (eng.), 7,000,000 kWh; pur. 13,755,600 kWh; rev. $623,652. (1932)

GALT Mun. Utils., Rt. 2, Box 112A, 64641, 816/673-6514, Arnold Werteen, supt.; 180 met.; no gen.; pur. 2,129,200 kWh; rev. $116,026.

GILMAN CITY Power & Light Plant, 64642, Earl Crump, supt.

HANNIBAL Bd. of Pub. Wks., City Hall, 63401, 314/221-8050, Owen Ransdell, gen. supt.; 8,333 met.; pur. 138,384,000 kWh; rev. $5,193,231. (1886)*

HARRISONVILLE Mun. Utils., 64701, 816/884-3285, Don Gragg, dir., pub. wrks.; 2,757 met.; pur. 42.8 million kWh; rev. $1,858,629. (1929)

HERMANN Mun. Utils., 312 Schiller St., 65041, 314/486-5953, Linford H. Thornton, supt.; 1,373 met.; no gen.; pur. 30,459,000 kWh; rev. $1,296,717. (1953)*

HIGGINSVILLE Mun. Utils., Box 110, 64037, 816/584-2106, Russell Ellis, supt. of utilities; 2,128 met.; gen. 4,940 kW, 2,530 kW oil-fired eng., 2,410 kW dual-fuel eng., 363,600 kWh; pur. 33,418,680 kWh; rev. $2,000,674. (1904)*

HOUSTON, City of, Elec. Dept. 111 W. Main St., 65483, 417/967-3653, J.P. McDonald, city admin.; 1,075 met.; no gen.; pur. 22,603,200 kWh.; rev. $909,035. (1951).

HUNNEWELL Elec. Dept., 63443, 314/983-2276, Bert Hooper, supt.; 170 met.; no gen.; (1915)

INDEPENDENCE, City of, Power & Light Dept., 21500 E. Truman Road, 64056, 816/796-4400, P.F. Banks, elec. util. dir.; 44,830 met.; gen. 142,000 kW coal (steam turbine), 89,000 kW oil (combus. turbine), 74,000 kW gas (comb. cycle), 568,099,215 kWh; pur. 75,474,378 kWh; rev. $30,497,569. (1901)*

JACKSON City of, 225 S. High St., 63755, 314/243-3568, Carl L. Talley, city adm.; 4,000 met.; gen. 1,700 kW oil-fired eng., 17,300 kW dual-fuel; pur. 62,988,000 kWh; rev. $2,294,300.*

KAHOKA Water & Light Dept., 275 N. Washington, 63445, 816/727-3161, Delbert Gilbert, supt.; 1,028 met.; gen. 4,334 kW dual-fuel (eng.), 1,534,000 kWh; pur. 10,975,200 kWh; rev. $647,854.

KENNETT Bd. of Pub. Wks., Box 40, 63857, 314/888-2835, Larry V. Jones, supt. of utils.; 5,000 met.; gen. 31,906 kW dual-fuel, 7.4 million kWh; pur. 91.8 million kWh; rev. $3,000,000. (1942)*

KIRKWOOD City of, 212 S. Taylor Ave., 63122, 314/822-5847, Bob R. Carter, supt.; 10,045 met.; no gen.; pur. 141,687,000 kWh; rev. $7,106,320. (1900)

LAMAR Light and Water Co., 1100 Broadway, 64759, 417/682-5554, J.A. Roberts, city supt.; 2,139 met.; no gen.; pur. 38,499,000 kWh; rev. $1,141,873. (1900)*

LA PLATA Mun. Power and Light, 63549, 816/332-7212, Gayle Perry, supt.; 800 met.; gen. 1,800 kW eng., 122,800 kWh; pur. 7,170,197 kWh. (1938)

LEBANON Light & Water Dept., 210 Van Buren St., Box 111, 65536, 417/532-2157, Bill Lawson, supt.; 3,600 met.; no gen.

LIBERAL Mun. Light & Water, 64762, 417/843-2135, Neil M. Mooney, supt.; 350 met.; no gen.; pur. 4.3 million kWh; rev. $189,366. (1935)

LOCKWOOD Light & Water, Box O, 65682, 417/232-4221, Wayne Shorter Jr., city supt.; 540 met.; no gen.; pur. 4.2 million kWh; rev. $86,446.

MACON Mun. Utils., 121-123 W. Bourke St., Box 569, 63552, 816/385-3173, Paul E. Jensen, gen. supt.; 2,633 met.; gen. 11,700 kW oil-fired, 2.3 million kWh; pur. 53.5 million kWh; rev. $2,306,770. (1890)*

MALDEN Bd. of Pub. Wks., 111 E. LacLede, 63863, 314/276-2238, Wm. Ray Lyons, gen. mgr.; 2,609 met.; gen. 13,800 kW dual-fuel, 45,616,901 kWh; pur. 50,578,545 kWh; rev. $1,718,364. (1952)

MANSFIELD City of, 65704, 417/924-3719, Kenneth Cowell, city supvr.; 625 met.; no gen. (1963)

MARCELINE Mun. Utils., 116 N. Kansas Ave., 64658, 816/376-3528, Robert Engelhard, supt.; 1,350 met.; no gen.; pur. 21,412,800 kWh; rev. $1,162,301.

MARSHALL Mun. Utils. (Bd. of Pub. Wks.), 74 E. Arrow St., 65340, 816/886-6966, Thomas F. Hill, gen. mgr.; 5,395 met.; gen. 22,000 kW coal, 4,000 kW gas (steam turbine), 15,000 oil (combus. turbine), 41,000 kWh; pur. 30,000,000 kWh; rev. $8,948,000. (1920)*

MEMPHIS, City of, 135 S. Main, 63555, 816/465-2003, Paul C. Luscombe, supt.; 1,298 met.; gen. 6,476 kW dual-fuel (eng.), 657,400 kWh; pur. 13,209,430 kWh; rev. $892,434. (1919)*

MILAN City of, 201 N. Market, Box 247, 63556, 816/265-4411, Edward Sayre, supt.; 965 met., no gen.; sales 18,324,000 kWh; rev. $916,335.

MINDENMINES Mun. Light Dept., Box 115, 64769, 417/842-3216, Freddie Lee, supt.; 170 met.; no gen.; pur. 1,191,300 kWh; rev. $65,425. (1922)

MONETT City of, 217 5th St., Box 110, 65708, 417/235-3300, Harlan C. Barekman, supt.; 3,087 met.; no gen.; pur. 78,067,200 kWh; rev. $2,900,871. (1893)*

MONROE CITY City of, Elec. Prod., 300 N. Main, 63456, 314/735-4585, John G. Saunders, gen. supt. of utils.; 1,245 met.; gen. 8,000 kW dual-fuel, 700 oil-fired eng. 1,340,600 kWh; pur. 27,825,620 kWh; rev. $1,116,069. (1902)

MOUNT VERNON City of, 319 E. Dallas, Box 70, 65712, Jack Swearingen, supt.; 417/466-2122; 1,590 met.; no gen.; pur. 22,197,942 kWh; rev. $908,780. (1938)

NEW MADRID Mun. Light & Power, 560 Mott St., Box 256, 63866, Don Lloyd, city adm.; 314/748-2458; 1,620 met.; no gen.; pur. 27,229,576 kWh; rev. $884,906. (1938)*

NIXA City of, Bd. of Pub. Wks., 106 E. Mt. Vernon, 65714, 417/725-3229, Fred Vandekerkhove, bd. chair.; 1,090 met., no gen.; pur. 14.9 million kWh; rev. $410,901. (1967)

ODESSA Mun. Power Plant, 9th & Dryden, 64076, 816/633-5521, Lee Earl Barker, city supt.; 1,275 met.; gen. 7,835 kW dual-fuel (eng.), 1,289,100 kWh; pur. 23,275,200 kWh; rev. $807,811. (1939)

OSCEOLA Mun. Utils., Box 321, 64776, 417/646-8421, Emalue E. Kinser, clerk; 350 met.; no gen.; pur. 4,687,200 kWh; rev. $349,281. (1971)*

OWENSVILLE City of, Mun. Utils., 109 N. 2nd, 65066, 314/437-2514, Roy Bizzle, supt.; 1,100 met.; gen. 2,110 kW diesel; rev. $880,000.

PALMYRA Mun. Utils., 301 S. Main, 63461, 314/769-2224, William D. Huffman, gen. supt.; 1,673 met.; gen. 1,000 kW oil-fired eng.; 5,370 kW dual-fuel eng.; 2,063,500 kWh; pur. 16,685,400 kWh; rev. $1,016,029. (1912)*

PARIS City of, 124 W. Caldwell St., 65275, 816/327-4334, Ralph Jett, supt.; 796 met.; no gen.; pur. 11,042,000 kWh; rev. $518,658.

PATTONSBURG Mun. Light Plant, 64670, Irvin Eberle, supt.

PERRY Pub. Utils., 63462, 314/565-3131, Ernst E. Elliott, supt.; 400 met.; no gen.; pur. 1.7 million kWh; rev. $78,685.

PLEASANT HILL Mun. Utils., 203 Paul St., 64080, 816/987-2245, Jerry Barbarick, supt.; 1,575 met.; no gen.; pur. 15,919,200 kWh; rev. $1,052,340. (1939)*

POPLAR BLUFF City of, Light and Water-Sewer Depts., 301 S. Main St., 63901, 314/785-5749, James D. Pierce, mgr.; 7,944 met.; gen. 14,000 kW dual-fuel, 440,584 kWh; pur. 170,992,664 kWh; rev. $5,009,341. (1917)*

RICH HILL, City of, Mun. Elec. Plant, Seventh and Walnut Sts., 64779, 417/395-2223, Joy DeTienne, elec. supt.; 796 met.; no gen.; pur. 245,096 kWh; rev. $449,919. (1882)

RICHLAND Mun. Utils., Box 798, 65556, 314/745-3532, John Starmer, supt., 927 met.; no gen.; sales 9,570,328 kWh; rev. $476,384. (1946)

ROCK PORT Bd. of Pub. Wks., 102 W. Clay St., 64482, 816/744-2676, Clayton Chipman, supt.; 1,000 met.; gen. 500 kW oil-fired, 4,750 kW dual-fuel (eng.), 495,800 kWh; pur. 11,700,000 kWh; rev. $584,738. (1932)

ROLLA Mun. Utils., Box 767, 65401, 314/364-1572, James W. Banse, gen. mgr.; 5,263 met.; no gen.; pur. 139.3 million kWh; rev. $4,897,560. (1945)

ST. JAMES Mun. Utils., 105 N. Jefferson St., Box 426, 65559, 314/265-3282, Kenneth Young, acting supt.; 1,100 met.; no gen.; pur. 7.5 million kWh; rev. $172,309.

ST. ROBERT City of, Elec. Utils., Box 826, 65583, 314/336-3911, Jack Fincher, util. supt.; 875 met.; no gen.; pur. 19,382,613 kWh; rev. $593,273. (1963)

SALEM, City of, Mun. Elec. Lightworks, 3rd & Washington Sts., 65560, 314/729-4117, Jeanne Hollingshead, supvr., bus. oper.; 2,435 met.; no gen.; pur. 32,712,000 kWh; rev. $1,717,236. (1934)

SALISBURY Mun. Utils., 128 W. 2nd St., 65281, 816/388-6197, Gerald Feller, supt.; 1,141 met.; gen. 2,000 kW oil (eng.), 168,000 kWh; pur. 14,802,000 kWh; rev. $880,098.

SHELBINA City of, 63468, 314/588-4104, G.N. Rainey, supt.; 1,135 met.; gen. 3,000 kW dual-fuel, 16,760,000 kWh; pur. 16,512,000 kWh; rev. $910,000.

SIKESTON Bd. of Mun. Utils., Box 370, 63801, 314/471-3328, E.R. Inman, util. dir.; 7,672 met.; gen. 250,300, 241,000 kW coal, 4,300 kW oil-fired, 5,000 kW dual-fuel, 38,092,288 kWh; sales 337,927,799 million kWh; rev. $17,065,832. (1931)*

SLATER City of, 109 N. Main St., 65349, 816/529-2271, Zack Zoul, city mgr.; 1,260 met.; no gen.; pur. 10,769,154 kWh; rev. $785,848.

SPRINGFIELD City Utils., 301 E. Central St., Box 551, 65801, 417/831-8723, Robert E. Roundtree, gen. mgr.; 60,722 met.; gen. 462,000 kW, 447,000 kW coal, 15,000 kW oil turbine, 1,449,665,000 kWh; pur.

190,377,000 kWh; rev. $66,389,002. (1945)*

STANBERRY Dept. of Light, Gas & Water, First & Locust St., 64489, 816/783-2725, Sam W. Hatheway, supt., bd. of pub. wks.; 700 met.; gen. 5,108 kW, 226,320 kWh; pur. 7,430,000 kWh; rev. $419,254. (1937)

STEELVILLE, City of, Box M, 65565, 314/775-2181, Virgil L. Robinson, city engr.; 815 met.; no gen.; pur. 12,451,080 kWh; rev. $427,505.

SULLIVAN Mun. Util., 305 N. Park St., 63080, 314/468-4712, Joseph Thurmond; 2,500 met.; no gen.; pur. 52,749,600 kWh; rev. $2,151,812. (1942).

THAYER City of, Second and Market St., 65574, 417/264-3921, Ira Goans, supt.; 855 met.; no gen.; rev. $435,941.

TRENTON Mun. Utils., 115 E. 10th, Box 108, 64683, 816/359-2281, Gary Whorton, supt.; 3,084 met.; gen. 16,000 kW oil, 3,000 kW dual-fuel (eng.), 2,854,600 kWh; pur. 52,496,000 kWh; rev. $3,135,819. (1937)*

UNIONVILLE Light & Power, 1611 Grant St., 63565, 816/947-2168, Dennie Sheehan, supt.; 1,370 met.; gen. 3,940 kW oil-fired, 2,910 kW dual-fuel, 1.6 million kWh, pur. 12 million kWh; rev. $769,000. (1921)

VANDALIA Bd. of Pub. Wks., 202 E. Park St., 63382, 314/594-3302, Ray Callanan, supt.; 1,518 met.; gen. 3,375 kW oil, 2,850 kW dual-fuel (eng.), 903,600 kWh; pur. 13,074,000 kWh; rev. $758,261. (1938)*

WAYNESVILLE Mun. Elec. Util., 201½ North St., 65583, 314/774-6823,Tom Tinsley, supt.; 1,321 met.; no gen.; sales 16,704,189 kWh; rev. $789,764. (1963)

WEST PLAINS City Utils., 1910 Holiday Lane, Box 710, 65775, 417/256-7176, Lowell B. Patterson, city engr.; 4,096 met.; no gen.; pur. 91,951,500 kWh; rev. $3,206,606. (1918)*

MONTANA

LIVINGSTON City of, 414 E. Callender St., 59047, 406/222-6120, ext. 203, Ed Stern, dir.; gen. 325 kW wind; 118,978 kWh; pur. none (city does not distribute electricity); rev. $7,180. (1983)*

NEBRASKA

ALLIANCE Mun. Elec. System, Drawer D, 69301, 308/762-5400, R. A. Placek, city mgr.; 5,950 met.; gen. 7,500 kW coal and/or gas, pur. 89,581,708 kWh; rev. $3,963,845. (1916)*

ANSLEY Mun. Light Plant, 68814, Richard Amsberry, supt.; 330 met.; gen. 1,600 kW dual-fuel eng.; 200 kW oil-fired eng.; 192,900 kWh; pur. 3,209,154 kWh; rev. $193,541. (1914)

ARAPAHOE Light & Water, 603 Elm St., Box 235, 68922, 308/962-7414, Wesley F. Smith, util. supt.; 671 met.; no gen.; pur. 7,000,000 kWh; rev. $441,835. (1921)

ARNOLD Light & Water Plant, Box 35, 69120, 308/848-2223, Arleigh Kincaid, city admr., 650 met.; gen. 1,120 kW oil-fired eng.; 35,000 kWh; pur. 5.8 million kWh; rev. $206,000. (1937)

AUBURN, Bd. of Pub. Works, 1600 O St., Box 288, 68305, 402/274-4981, Lambert K. Blecha, gen. mgr.; 2,665 met.; gen. 727 kW oil, 10,600 kW dual-fuel (eng.) 1,857,200 kWh; pur. 39,848,000 kWh; rev. $1,835,615. (1939)*

BARTLEY Elec. Dept., Box 53, 69020, 308/692-3340, Melvin Meguire, mgr.; 200 met.; no gen.; pur. 1.3 million kWh.

BATTLE CREEK Mun. Light & Power Dept., Box 280, 68715, 402/675-2165, Donald Beal, elec. supt.; 597 met.; no gen.; pur 8,488,355 kWh; rev. $406,804. (1948)

BAYARD Mun. Utils., Box 160, 69334, 308/586-1121, L. G. Sanchez, supt.; 650 met.; no gen.; pur. 12,210,000 kWh.; rev. $310,116.

BEATRICE, City of, Bd. of Pub. Works, 205 N. 4th St., Box 279, 68310, 402/223-5211, James Bauer, gen. mgr.; 6,560 met.; no gen.; pur. 97,669,311 kWh, rev. $4,206,839. (1947)

BEAVER CITY Light & Water Dept., 68926, 308/268-2125, Farrel Bates, utils. supt.; 441 met.; gen. 1,260 kW dual-fuel (eng.); 4,100 kWh; pur. 4,090,733 kWh; rev. $282,906. (1912)

BENKELMAN, City of, Mun. Water & Light Plant, Box 197, 69021, 308/423-2765, Bill Seybold, plant supt.; 665 met.; gen. 900 kW gas (eng.); pur. 7,656,332 kWh; rev. $427,718.

BLAIR Utils., 218 S. 16th St., 68008, 402/426-4191, Raymond D. Fisher, dir. pub. works; 2,957 met.; gen. 14,140 kW dual-fuel (eng.); 373,930 kWh; pur. 48,585,000 kWh; rev. $1,978,546. (1916)

BLUE HILL, City of, Utils. Plant, Box 277, 68930, 402/756-2056, Royal Roskilly, supt.; 414 met.; gen. 1,200 kW dual-fuel (eng.); pur. 6,423,566 kWh; rev. $158,473. (1910)

BRADSHAW, Box 155, 68319, 402/736-4634 B. J. Bartels, util. supt.; 200 met.; no gen.; pur. 2,900,000 kWh.

BRAINARD Elec. Dept., 68626, Larry Foral, supt.; 260 met.; no gen.; pur. 1 million kWh.

BRIDGEPORT Dept. of Utils., Box 280, 69336, Charles E. Brandt Jr., supt.; 761 met.; no gen.; pur. 3.3 million kWh.

BROKEN BOW Utils., Box 504, 68822, 308/872-6884, Jim Piester, mgr.; 2,200 met.; gen. 8,718 kW eng., 6.1 million kWh; pur. 26.7 million kWh; rev. $1,028,606. (1946)

BURT COUNTY PUBLIC POWER DISTRICT, Box 209, Tekamah, 68061, 402/374-2631, Jesse A. Rogers, mgr.; 3,999 met.; no gen.; pur. 84,447,548 kWh; rev. $3,550,965. (1935)

BURWELL Mun. Utils., 8th & H Sts , 68823, Jerry Hughes, supt.; 750 met.; gen. 10,000 kW eng., 450,000 kWh; pur. 7 million kWh, rev. $405,000. (1922)

BUTLER COUNTY RURAL PUBLIC POWER DISTRICT, Box 349, David City, 68632, 402/367-3081, Richard S. Polak, gen. mgr.; 3,823 met.; no gen.; pur. 61,369,029 kWh; rev. $3,486,043. (1937)

CALLAWAY Mun. Light, Box 157, 68825, 308/836-2262, Larry Nelson, supt.; 375 met.; gen. 900 kW oil-fired eng.; 2,200 kWh; pur. 4,222,723 kWh; rev. $138,542. (1912)

CAMBRIDGE Mun. Light, Water & Ice Works, Box 297, 69022, 308/836-2262, Ken Fichtner, supt.;4,439 met.; gen. 3,315 kW eng.

CAMPBELL Mun. Elec. Dept., Box 215, 68932, 402/756-8111, Greg L'Heureux, supt.; 250 met.; gen. 200 kW eng. (1909)

CEDAR-KNOX PUBLIC POWER DISTRICT, Box 397, Hartington, 68739, 402/254-6291, Harold M Martindale, gen. mgr.; 4,248 met.; no gen.; pur. 93,830,274 kWh; rev. $3,998,786. (1937)

CENTRAL CITY Elec. Dept., Box 418, 68826, 308/946-2771, Loyal Ruhl, supt.; 1,600 met.; no gen.; pur. 21,513,982 kWh; rev. $959,314 (1909)

CENTRAL NEBRASKA PUBLIC POWER & IRRIGATION DISTRICT (THE), Box 356, Holdrege, 68949, 308/995-8601, Frank J. Dragoun, gen. mgr.; gen. 108,800 kW gas (steam turbine), 54,000 kW hydro, 204,110,165 kWh; pur. none; rev. $5,516,232. (Sells power output to Nebraska Public Power District.) (1933)

CHAPPELL Mun. Utils., 757 2nd St., 69129, 308/874-2401, Gordon Adkins, supt.; 731 met.; gen. 400 kW dual-fuel (eng.), (standby power); pur. 9,177,000 kWh; rev. $331,337. (1911)

CHESTER, Village of, Box 335, 68327, 402/324-5755, Perry James, supt.; 252 met.; no gen.; pur. 2,570,823 kWh; rev. $124,965. (1920)

CHIMNEY ROCK PUBLIC POWER DISTRICT, Box 608, Bayard, 69334, 308/586-1824, Jim Reiber, mgr.; 2,200 met.; no gen.; pur. 36,274,213 kWh; rev. $1,861,079.

CLARKSON, City of, Elec. Dept., Box 18, 68629, 402/892-3100, Ivan D. Horst, mayor; 460 met.; no gen.; pur. 5,250,000 kWh. (1925)

CORNHUSKER PUBLIC POWER DISTRICT, Highway 81 N.W., Box 9, Columbus, 68601, 402/564-2821, Norman L. Hoge, gen. mgr.; 7,802 met.; no gen.; pur. 152,731,708 kWh; rev. $7,116,945. (1942)

COZAD Bd. of Pub. Wks., 211 W. 8th St., Box 65, 69130, 308/784-2090, Jim Morton, city admin., 1,877 met.; no gen.; pur. 48,719,430 kWh; rev. $1,959,971. (1939)

CRETE Elec. Dept., City Hall, 243 E. 13th St., 68333, 402/826-4311 Ext. 30, George G. Beyer, mgr., 2,353 met.; gen. 420 kW oil, 14,857 kW dual-fuel (eng.); 1,148,200 kWh; pur. 83,025,114 kWh; rev. $2,895,667. (1887)*

CUMING COUNTY PUBLIC POWER DISTRICT, 500 S. Main St., Box 67, West Point, 68788, 402/372-2463, Thomas A. Thomas, gen. mgr.; 2,776 met.; no gen.; pur. 85,581,333 kWh; rev. $4,301,250 (1935)

CURTIS Light & Water, 308 Center Ave., Box 6, 69025, 308/367-4122, E. Thomas Spaunaugle, city clerk; 744 met.; no gen.; pur. 9,128,979 kWh; rev. $481,724. (1913)

CUSTER PUBLIC POWER DISTRICT, 625 E. South St., Box 10, Broken Bow, 68822, 308/872-2451, John H. Evans, mgr.; 8,020 met.; no gen.; pur. 121,837,178 kWh; rev. $6,543,531. (1944)

DAKOTA CITY, City of, Box 482, 68731, 402/987-3331, Don McKinney, city admin.; 520 met.; no gen.; pur. 9,498,720 kWh; rev. $341,740. (1910)

DAVENPORT Water & Light, 68335, Charley E. DeVore, util. supt.; no gen.

DAVID CITY Light & Water, 402 5th St., 68632, 402/367-3135, Gene Grubaugh, supt.; 1,298 met.; gen. 5,000 kW eng., 3.5 million kWh; pur. 15.9 million kWh; rev. $831,162. (1913)*

DAWSON COUNTY PUBLIC POWER DISTRICT, 300 S. Washington St., Box 777, Lexington, 68850, 308/324-2386, Philip E. Darby Jr., mgr.; 14,863 met.; no gen.; pur. 221,490,370 kWh; rev. $12,807,173. (1937)

DESHLER Mun. Utils., Box 189, 68340, 402/365-4260, R. G. Koerwitz, city clerk; 535 met.; no gen.; pur. 5,228,933 kWh; rev. $330,008.

DE WITT Mun. Light & Power Plant, Box 208, 68341, 402/683-5025, Charles McDougall, mgr.; 360 met.; no gen.; pur. 14,045,768 kWh; rev. $519,000.

DORCHESTER Light Plant, Box 287, 68343, 402/946-3201, Leroy A. Vyhnalek, supt.; 300 met.; no gen.; pur. 4 million kWh; rev. $170,000.

DOUGLAS, Village of, 68344, 402/799-2330, Donald Smith, supt.; 110 met.; no gen.; pur. 109,080 kWh; rev. $58,550. (1926)

EDGAR, City of, Box 485, 68935, 402/224-5145, Robert Mitchell, util. supt.; 385 met.; no gen; pur. 5,047,891 kWh; rev. $188,173.

ELK CREEK Light & Water Dept., 68348, 402/877-2105, A. J. Damm, util., supt.; 85 met.; no gen.; rev. $36,000. (1920)

ELKHORN RURAL PUBLIC POWER DISTRICT, Box 310, Battle Creek, 68715, 402/675-2185, Milton Smith, mgr.; 6,243 met.; no gen.; pur. 110, 676,930 kWh; rev. $5,644,199 (1939)

EMERSON Mun. Light & Power Plant, Box 336, 68733, 402/695-2554, David Gradert, elec. supt.; 1,900 kW steam and eng.; 1,957,700 kWh; pur. 2,633,600 kWh; rev. $258,943. (1912)

ENDICOTT Elec. Dept., 68350, Clyde Kellie, clerk; 66 met.; no gen.

FAIRBURY Light & Water, 612 D St., 68352, 402/729-3030, Edward R. Brandt, supt.; 3,342 met.; gen. 19,000 kW dual-fuel (steam turbine), standby; pur. 52 million; rev. $2,159,671. (1910)

FAIRMONT Mun. Light & Water Works, Box 156, 68354, Russell Snodgrass, supt.; no gen.

FALLS CITY Util. Dept., 1820 Towle St., 68355, 402/245-2741, Daryl Stockburger, util. supt.; 2,764 met.; gen. 16,116 kW dual-fuel (diesel), 22.9 million kWh; pur. 20.2 million kWh; rev. $1,671,069. (1890)

FILLEY Utils., 68357, 402/662-3555, Harold Huls and David Norten, light commissioners; 100 met.; no gen.; pur. 782,100 kWh; rev. $46,779.

FRANKLIN Water & Light Comm., 619-15th Ave., 68939, 308/425-6217, Jerry Remaly, supt.; 650 met.; gen. 4,080 kW eng.

FRANKLIN COUNTY RURAL PUBLIC POWER DISTRICT, 101 16th Ave., Box 246, Franklin, 68939, 308/425-6217, Arnold Esplund, mgr.; 1,794 met.; no gen.; pur. 21,922,704 kWh; rev. $1,394,594. (1946)

FREMONT, City of, Dept. of Utils., 725 N. Park Ave., 68025, 402/721-2490, Jon K. McCafferty, gen. mgr.; 11,916 met.; gen. 136,000 kW coal, 247,526,000 kWh; pur. 66,836,100 kWh; rev. $13,426,954. (1895)*

FRIEND, City of, 235 Maple St., 68359, 402/947-5251, Robert Moore, supt. of utils.; 630 met.; no gen.; pur. 8,015,160 kWh. rev. $437,755. (1905)

GERING City of, 1450 10th St., 69341, 308/436-5096, Michael E. Solomon, city adm.; 3,304 met.; no gen.; pur. 63,185,702 kWh; rev. $1,821,445. (1934)

GILTNER Light & Water Dept., Box 254, 68841, Tom Lambert, light comm.; no gen.

GOTHENBURG, City of, 490 9th St., 69138, 308/537-3668, M. A. Rishel, mayor; Stan Hite, elec. foreman; 1,500 met.; no gen.; pur. 32.7 million kWh; rev. $1,000,000. (1955)

GRAND ISLAND Elec. Dept., Box 1968, 68802-1968, 308/381-5487, Robert J. Olson, dir. util.; 17,742 met.; gen 119,300 kW, 104,500 kW coal, 14,800 kW gas turbine, 123,809,990 kWh; sales 314,551,951 kWh; rev. $18,394,425. (1905)*

GRANT, Village of, Box 614, 69140, 308/352-2100, John Mathes, util. supt.; no gen.; pur. 11,800,000 kWh; rev. $588,254. (operated by Midwest Electric Membership Corp.)

GREENWOOD Light & Water, Box 86, 402/789-2300, Edwin D. Koehler, util. supt.; 225 met.; no gen.; pur. 2,659,500 kWh; rev. $117,642.

HAMPTON Elec. Dept., Box 277, 68843, 402/725-3186, Donald Smith, supt.; no gen.; pur. 3,066,732 million kWh; rev. $104,763. (1905)

HASTINGS Utils., 1228 N. Denver, Box 289, 68901, 402/463-1371, L.V. Blocker, mgr. of utils.; 11,170 met.; gen. 76,500 kW oil, 54,000 kW gas (steam turbine), 22,000 kW oil (combus. turbine); 124,265,600 kWh; pur. 59,429,336 kWh; rev. $9,888,292. (1901)*

HEBRON Elec. Dept., 216 Lincoln Ave., 68370, 402/768-6322; Roger Downs, util. supt., 950 met.; no gen.; pur. 13.5 million kWh; rev. $550,000.

HEMINGFORD Mun. Utils., Box 395, 69348, 308/487-3465, Jesus Gonzales, supt.; 585 met.; no gen.; pur. 6,311,097 kWh; rev. $312,361. (1956)

HENRY Utils., Box 76, 69349, Michael Summey, supt.; 50 met.; no gen. pur. 600,000 kWh.

HICKMAN, Elec. Dept., Box 127, 115 Locust, 68372, 402/792-2212, Leon Ten Hulzen, supt.; 350 met., no gen.; pur 4,786,721 kWh; rev. $227,828.

HILDRETH Utils., Box 217, 68947, Dale Casper, supt.; 218 met.; no gen.; pur. 1.1 million kWh; rev. $26,802.

HOLBROOK Mun. Light & Power Plant, Box 148, 68948, 308/493-5448, Don Vonderfecht, supt.; 197 met.; gen. 120 kW eng.; pur. 864,000 kWh; rev. $24,104.

HOLDREGE, City of, Util. Sys., 3ox 436, 68949, 308/995-8681, Marvin Paulsen, utils. supt.; 3,006 met.; no gen.; sales 83,050,291 kWh; rev. $3,002,376. (1919)

HOWARD GREELEY RURAL PUBLIC POWER DISTRICT, 422 Howard Ave., Box 105, St. Paul, 68873, 308/754-4457, Roy L. Olsen, mgr.; 2,678 met.; no gen.; pur. 52,181,291 kWh; rev. $2,332,633 (1938)

HUBBELL, Village of, Elec. Dept., Box 42, 68375, 402/436-2745, Gerald Van Winkle, comm.; 86 met.; no gen.; sales 374,122 kWh; rev. $27,149.

IMPERIAL Mun. Utils., 919 Douglas, 69033, 308/882-5151, Marvin S. Athey, supt. of utils.; 1,108 met.; no gen. (600 kW oil-fired eng., 100 kW hydro standby); pur. 19,716,000 kWh; rev. $676,456. (1915)

INDIANOLA, City of, Drawer F, 69034, 308/364-2413, Warren Young, light comm.; 380 met.; no gen.; pur. 4,084,000 kWh; rev $227,356.

KBR RURAL PUBLIC POWER DISTRICT, 374 North Pine, Box 187, Ainsworth, 69210, 402/387-1120, Duane Philben, mgr.; 3,156 met.; no gen.; pur. 47,478,044 kWh; rev. $2,703,505. (1950)

KIMBALL Utilities, 223 S. Chestnut, 69145, 308/235-3639, Robert E. Arraj, dir. pub. works; 1,318 met.; gen. 9,900 kW eng., 15.7 million kWh; rev. $885,479. (1912)*

LAUREL Mun. Elec. Light & Power, 101 W. 2nd St., 68745, 402/265-3112, L. J. Mallatt, city admin.; 616 met.; gen. 3,885 kW dual-fuel eng., 117,000 kWh; pur. 6,751,000; rev. $278,320 (1916)

LEIGH, Village of, Box 277, 68643, 402/487-3303, Reynold Dolesh, maint.; 298 met.; no gen.; pur. 4,207,200 kWh; rev. $172,202.

LEXINGTON Elec. Dept., 406 E. 7th St., 68850, 308/324-2341, Pete Bishop, elec. supt.; 3,400 met.; no gen.; pur. 70,992,492 kWh; rev. $2,514,411 (1945)

LINCOLN Elec. System, 1200 "N" St., Suite 300, 68508, 402/475-4211, Walter A. Canney, adm.; 80,892 met.; gen. 20,000 kW oil, 217,000 kW coal (steam turbine), 85,000 kW oil (combus. turbine), 859,939,000 kWh; pur. 1,352,730,000 kWh; rev. $77,423,275. (1913).*

LODGEPOLE Water & Light Dept., Box 266, 69149, Lloyd R. Dykman, supt.; 200 met.; gen. 245 kW eng.; pur. 1.6 million kWh.

LOUP RIVER PUBLIC POWER DISTRICT, 2404-15th St., Box 988, Columbus, 68601, 402/564-3171, Max E. Kiburz, gen. mgr.; 15,040 met.; gen. 48,150 kW hydro, 145,038,400 kWh; sales 544,990,387 kWh; rev. $19,278,204. (1933)*

LOUP VALLEYS RURAL PUBLIC POWER DISTRICT, 312 S. 15th St., Box 166, Ord, 68862, 308/728-3633, Kenneth W. Clement, mgr.; 3,533 met.; no gen.;

pur. 48,840,335 kWh; rev. $2,790,435. (1946)

LYMAN, Village of, Light Dept., Box 301, 69352, 308/787-1444, Martin Staab, supvr., 283 met.; no gen.; pur. 3,430,500 kWh; rev. $155,071. (1922)

LYONS Utils., 335 Main St., 68038, 402/687-2130, Paul R. Hayes, supt.; 643 met.; no gen.; pur. 258,686 kWh; rev. $329,808.

MADISON, City of, 210 W. 3rd St., Box 527, 68748, 402/454-3412, Mark I. Arbuthnot, city adm., 1,161 met.; gen. 690 kW oil, 4,560 kW dual-fuel (eng.), 141,300 kWh; pur. 34,664,486 kWh; rev. $1,384,788. (1901)

McCOOK PUBLIC POWER DISTRICT, Box 739, McCook, 69001, 308/345-2500, James A. Underwood, mgr.; 4,630 met.; no gen.; pur. 127,552,978 kWh; rev. $6,091,008. (1935)

MINDEN Light & Water Comm., 325 N. Colorado Ave., 68959, 308/832-1365, Thomas B. Kenney, supt.; 1,800 met.; no gen.; pur. 2,698,736 kWh; rev. $1,270,800.

MITCHELL Light & Water, 1444-12th St., 69357, 308/623-2133, 623-2446, Don R. Ward, supt.; 877 met.; no gen.; pur. 14,246,744 kWh; rev. $475,510. (1934)

MORRILL, Village of, Light & Power, Box 305, 69358, 308/247-2312, Richard J. Doyle, utils. foreman; 580 met.; no gen.; pur. 10,171,932 kWh; rev. $434,462. (est. 1900s)

MULLEN, Village of, Box 187, 69152, 308/546-2625, Wayne Kautz, util. supt.; 400 met.; gen. 1,125 kW diesel oil-fired, 26,050 kWh; pur. 4,660,850 kWh; rev. $213,630. (1957)

NEBRASKA CITY Utils., 100 Central Ave., 68410, 402/873-3353, William T. Brockley, gen. mgr.; 5,271 met.; gen. 30,255 kW dual-fuel (eng.); 31,441,570 kWh; pur. 58,702,861 kWh; rev. $3,594,479. (1944)*

NEBRASKA PUBLIC POWER DISTRICT (formerly Consumers Public Power District), 1414 15th St., Box 499, Columbus, 68601, 402/563-5527, Don E. Schaufelberger, gen. mgr.; 108,393 met.; gen. 2,197,700 kW, 1,555,000 kW coal, 162,300 kW gas, 760,000 kW nuclear; 149,000 kW oil (comb turbine), 28,900 kW oil (eng), 19,010 kW gas (eng), 123,000 kW hydro, 7,581,807,027 kWh; sales 8,460,984; rev. $267,821,554. (1939)*

NELSON, City of, Mun. Light & Water Dept. Box 327, 68961, 402/225-4401, Virgil Schleif, utils. supt., 378 met.; no gen.; pur. 4,098,014 kWh; $218,748.

NORRIS PUBLIC POWER DISTRICT, 606 Irving St., Box 399, Beatrice, 68310, 402/223-4038, Glen R. Schmieding, gen. mgr.; 11,685 met.; gen. 720 kW hydro; 747,823 kWh; pur. 331,190,653 kWh; rev. $14,816,172. (1933)

NORTH CENTRAL PUBLIC POWER DISTRICT, Box 7, Creighton, 68729, 402/358-5112, Donald G. Elwood, mgr.; 3,612 met.; no gen.; pur. 61,065,459 kWh; rev. $3,309,639. (1945)

NORTHEAST NEBRASKA RURAL PUBLIC POWER DISTRICT, Box 39, Emerson, 68733, 402/695-2642, Cletus J. Temple, gen. mgr.; 2,701 met.; no gen.; pur. 57,926,219 kWh; rev. $2,761,489 (1939).

NORTH PLATTE Mun. Lt. & Power, Box 490, 69103, 308/532-5320, John F. Cox, mgr. bd. of pub. wks.; 12,360 met.; no gen.; pur. 185,563,668 kWh; rev. $8,281,313. (1940)*

NORTHWEST RURAL PUBLIC POWER DISTRICT, South Highway 87, Box 249, Hay Springs, 69347, 308/638-4445, Rolland Skinner, mgr.; 2,645 met.; no gen.; pur. 46,661,586 kWh; rev. $3,322,860. (1947)

OMAHA PUBLIC POWER DISTRICT, 1623 Harney St., 68102, 402/536-4000, B. W. Reznicek, gen. mgr.; 216,556 met.; gen. 1,997,500 kW, 1,293,100 kW coal, 474,300 kW nuclear (steam turbine), 212,000 kW oil (combus. turbine), 17,900 kW oil (eng.), 6,255,287,100 kWh; sales 5,552,545,000 kWh; rev. $231,174,000. (1946)*

ORD, City of, 200 S. 16th St., 68862, 308/728-3595, Gene Baugh, util. supt.; 1,529 met.; gen. 10,000 kW, sales 18,274,556, rev. $1,040, 635. (1916)

OXFORD Mun. Light & Power Plant, 68967, Ronald Ludeke, supt.; gen. 4,220 kW eng.

PAXTON Light & Power Dept., 69155, Keith Loper, supt.; 274 met.; gen. 580 kW eng.

PENDER Mun. Light & Power Plant, 68047, 402/385-3179, Robert Fendrick, supt; 655 met.; gen. 5,300 kW eng., 6.1 million kWh; pur. 4 million kWh; rev. $350,000. (1920)

PIERCE Utils, Light & Power, 114 S. Brown, 68767, 402/329-4535, Clarence H. Wattier, mgr.; 1,818 met.; no gen.; pur. 13,722,568 kWh; rev. $655,846. (1941)*

PLAINVIEW Mun. Power Plant, Box 307, 68769, 402/582-4533, Fred Diedrichsen, city admin.; 700 met.; gen. 3,100 kW eng., 3.5 million kWh; pur. 5 million kWh; rev. $350,000.

POLK Light & Water Works, 68654, 402/765-6471, Arnold L. Neuhaus, supt.; 250 met.; no gen.; pur. 320,080 kWh; rev. $146,931. (1906)

POLK COUNTY RURAL PUBLIC POWER DISTRICT, 120 W. 4th St., Box 465, Stromsburg, 68666, 402/764-4381, Merlin Steele, mgr.; 2,390 met.; no gen.; pur. 42,087,119 kWh; rev. $2,302,849. (1936)

PRAGUE Elec. Dept., 68050, 402/663-4320 Robert Koranda, light comm.; 180 met.; no gen.; pur. 1.8 million kWh.

RANDOLPH Mun. Light Plant, Box 220, 68771, 402/337-0553, LeRoy Brummels, supt.; 662 met.; gen. 2,400 kW dual-fuel eng., 122,700 kWh; pur. 5,618,789 kWh; rev. $254,419. (1917)

RED CLOUD Mun. Light and Power, 540 N. Webster, 68970, 402/746-2214, Kenneth P. Schwartz, supt. of utils.; 829 met.; gen. 6,500 kW dual-fuel eng.; 456,782 kWh; pur. 10,118,830 kWh; rev. $423,190. (1912)

REYNOLDS Village of, Box 98, 68429, 402/547-2251, Don Gregory, utils. supt.; 68 met.; no gen.; pur. 470,800 kWh; rev. $29,705. (1923)

ROOSEVELT PUBLIC POWER DISTRICT, 1633 13th St., Box 97, Mitchell, 69357, 308/623-2124, H. F. Moranville, mgr.; 2,388 met.; no gen.; pur. 43,326,840 kWh; rev. $2,165,389. (1935) (Includes former Gering Valley Rural Public Power District.)

ST. PAUL, City of, Utils., 522 Howard Ave., 68873, 308/754-4483, Charles M. Schmid, city supt.; 1,088 met.; no gen.; pur. 12,571,821 kWh; rev. $782,145.

SALEM Light & Water Comm., 68433, N. E. Wickham, light comm., 95 met.; no gen.; rev. $26,138.

SARGENT, City of, Box 40, 68874, 308/527-4200, Robert Gruber, supt.; 460 met.; 2,488 kW dual-fuel eng., 831,800 kWh; pur. 4,743,371; rev. $256,455.

SCHUYLER Dept. of Utils, 124 E. 11th St., 68661, 402/352-5444, Fred Ayers, utils. supt.; 2,166 met.; pur. 70,657,541 kWh; rev. $2,464,558. (1892)*

SEWARD, City of, Mun. Elec. Light Dept., Box 38, 7th St., 68434, 402/643-2927, Lawrence Fiala, elec. supt.; 2,518 met.; no gen.; pur. 44,001,286 kWh; $2,203,687. (1921)

SEWARD COUNTY RURAL PUBLIC POWER DISTRICT, Box 69, Seward, 68434, 402/643-3434, Ron D. Holsteen, mgr.; 2,506 met.; no gen.; pur. 44,621,269 kWh; rev. $2,470,877. (1938)

SHICKLEY, Village of, Utils., 68436, 402/627-2055, Earl Frieden, board chairman; 222 met.; no gen.; pur. 3,028,077 kWh; rev. $157,879. (1923)

SIDNEY, City of, 1115-13th Ave., 69162, 308/254-5300; 2,991 met.; gen. 8,200 kW dual-fuel (eng.); 262,300 kWh; pur. 33,247,200 kWh; rev. $1,472,305. (1942)*

SNYDER Elec. Dept., 68664, 402/568-2306, Marvin M. Mead, supt., 193 met.; no gen.; pur. 4,905,613 kWh; rev. $180,516. (1910)

SOUTH CENTRAL PUBLIC POWER DISTRICT, Box 344, Nelson, 68961, 402/225-2351, Yale A. Meyer, mgr.; 4,012 met.; no gen.; pur. 86,202,508 kWh; rev. $4,090,223. (1961)

SOUTH SIOUX CITY Utils., 1615 1st Ave., 68776, 402/494-5827, Bill Bradish, elec. supt.; 3,945 met.; no gen.; pur. 74,951,471 kWh; rev. $3,736,378. (1896)

SOUTHERN NEBRASKA RURAL PUBLIC POWER DISTRICT, 1306 W. 3rd St., Box 1687, Grand Island, 68802, 308/384-2350, Charles J. Hoke, gen. mgr.; 16,641 met.; no gen.; pur. 389,211,093 kWh; rev. $19,173,848. (1937)

SOUTHWEST PUBLIC POWER DISTRICT, 221 N. Main, Box J, Paliiade, 69040, 308/285-3295, Donald H. Husted, gen. mgr.; 4,929 met.; gen. 330 kW oil (eng.); 600 kWh; pur. 98,999,206 kWh; rev. $5,964,283. (1954)

SPALDING Mun. Light & Power Co., 68665, 308/497-2661, Paul F. Semper, supt.; 460 met.; gen. 2,303 kW, 2,135 kW oil-fired eng., 150 kW hydro, 620,390 kWh; pur. 4,754,887 kWh; rev. $131,281. (1954)

SPENCER, Village of, Mun. Lt. & Pwr., Box 15, 68777, 402/589-1130, Lyle Karnes, lt. & wtr. comm.; 340 met.; no gen.; pur. 4,825,843 kWh; rev. $212,400.

STANTON Mun. Water & Light Plant, 68779, 402/439-2119, Vernon Reese, city supt.; 650 met.; no gen.; pur. 68.7 million kWh.

STANTON COUNTY PUBLIC POWER DISTRICT, Box 308, Stanton, 68779, 402/439-2228, George E. Cunningham, mgr.; 2,593 met.; no gen.; pur. 38,323,101 kWh; rev. $2,044,176. (1936)

STRATTON Water & Light Dept., Box 116, 69043, 308/276-2184, Mike Petersen, utils. supt.; 300 met.; no gen.; pur. 3,589,438 kWh; rev. $195,275.

STROMSBURG Light and Water Dept., 122 E. 3rd, 68666, 402/764-2561, M.D. Simpson, supt., 610 met.; no gen.; pur. 7,665,708, rev. $381,516.

STUART Mun. Water & Power, Box 177, 68780, 402/924-3977, M. A. Jauernig, supt.; 320 met.; gen. 1,328 kW, 653 kW oil-fired eng., 675 kW dual-fuel eng., kWh none; 1.4 million kWh; pur. 4,355,000 kWh; rev. $176,000. (1922)

SUPERIOR Utils., City of, 135 W. 4th St., Box 160, 68978, 402/879-4711, Richard Elliott, dir. pub. wks.; 1,497 met.; no gen.; pur. 26,288,875 kWh; rev. $1,249,247 (1941)

SUTTON Light & Power Plant, Box 437, 68979, Rolly Kastens, comm.; 725 met.; no gen.; pur. 2.6 million kWh.

SYRACUSE Utils., 578 Mohawk, 68446, 402/269-2173, Donald L. Block, util. supt.; 778 met.; no gen.; pur. 11,791,669 kWh; rev. $517,270. (est. 1930s)

TALMAGE Elec. Dept. City Hall, Box 66, 68448, 402/264-3715, Melvin Howe, supt.; 212 met.; no gen.; pur. 1.9 million kWh; rev. $42,970.

TECUMSEH, City of, 122 S. 4th St., 68450, 402/335-3025, Lloyd Hubbs, util. supt.; 995 met.; gen. 4,600 kW; sales 16,436,000 kWh; rev. $589,824 (Plant leased to Omaha Public Power District.) (1890)

TRENTON Mun. Light & Power, 223 W. C St., 69044, Barney Lee Whatley, supt.; 450 met.; gen. 880 kW eng., 1.1 million kWh; pur. 1.1 million kWh; rev. $59,039.

TWIN VALLEYS PUBLIC POWER DISTRICT, Box 160, Cambridge, 69022, 308/697-3315, Paul Liess, gen. mgr.; 4,419 met.; no gen.; pur. 60,155,342 kWh; rev. $3,508,380. (1944)

UNIVERSITY OF NEBRASKA Utility Plant, 14th & W. St., Lincoln, 68588, Douglas Schmidt, supt.; gen. 6,000 kW steam, 13,574,000 kWh; pur. 87,539,800 kWh.*

WAHOO City of, 605 N. Broadway, 68066, 402/443-3222, Donald Peterson, lt. and water comm.; 1,867 met.; 500 kW oil, 13,140 kW dual-fuel; 1,063,870 kWh; pur. 30,584,473 kWh; rev. $953,865. (1908)*

WAKEFIELD City Light Plant, 303 Oak St., Box 179, 68784, 402/287-2547, Kenneth Baker, light comm., supt.; 575 met.; gen. 4,870 kW eng., 9 million kWh; pur. none. (1917)

WALTHILL Mun. Elec. Dept., 68067, 402/846-5921, Henry L. Johnson, supt.; 400 met.; no gen.; pur. 5,063,927 kWh; rev. $277,487.

WAUNETA Mun. Utils, 69045, 308/394-5390, Arleigh Kincaid, supt. of util.; 549 met.; pur. 8.2 million kWh; rev. $182,275. (1948)

WAYNE Mun. Power Plant, 208 S. Main, 68787, 402/375-2866, Herman Wacker, supt., 1,994 met.; sales 29,480,996; rev. $1,142,000. (1920)*

WAYNE COUNTY PUBLIC POWER DISTRICT, 303 Logan, Box 190, Wayne, 68787, 402/375-1360, E. A. Schroeder, mgr.; 2,659 met.; no gen.; pur. 50,520,644 kWh; rev. $2,519,035. (1939)

WEST POINT Light & Water Works, 444 S. Main, 68788, 402/372-2466, Ralph Eby, city engr.; 1,721 met.; gen. 8,565 kW dual-fuel (standby); pur. 24,983,588 kWh; rev. $843,705. (1922)*

WHEAT BELT PUBLIC POWER DISTRICT, 2104 Illinois St., Box 177, Sidney, 69162, 308/254-5871, Gene M. Lienemann, gen. mgr.; 3,974 met.; no gen.; pur. 115,264,745 kWh; rev. $6,502,981. (1947)

WILBER Water & Light Dept., 68465, Nelson Behrens, supt.; 700 met.; gen. 2,430 kW eng.

WILCOX Light & Water Comm., 68982, 308/478-5510, Merle Ortegren, util. supt.; 211 met.; no gen.; pur. 3,600,000 kWh; rev. $110,937.

WINSIDE, Village of, Box 206, 68790, 402/286-4422, Dennis Van Houten, maint. supt.; 241 met.; no gen.; pur. 2,547,720 kWh; rev. $105,601. (1915)

WISNER Light & Water Dept., 1115 Ave. E, Box 367, 68791, 402/529-3383, Roland Johnson, util. supt. 724 met.; gen. 1,905 kW oil-fired eng.; pur. 11,936,448 kWh; rev. $364,743. (1905)

WOOD RIVER, City of, 68883, 308/583-2515, Wayne Woods, supt.; 445 met.; no gen.; pur. 8,118,733 kWh; rev. $399,748.

WYMORE, City of, 115 W. E St., 68466, 402/645-3377, John Sullivan, supt.; 910 met.; no gen.; pur. 9,572,735 kWh; rev. $323,210.

YORK COUNTY RURAL PUBLIC POWER DISTRICT, Hgy. 81 So., Box 219, York, 68467, 402/362-3355, Hilary Neesen, gen. mgr.; 3,668 met.; no gen.; pur. 78,053,754 kWh; rev. $4,167,156. (1938)

The following Nebraska communities own their own municipal electric systems which are operated by Nebraska Public Power District under lease agreements:

ABIE, ADAMS, AINSWORTH, ALDA, ALLEN, ANOKA, ARCADIA, ASHTON, ATKINSON, ATLANTA, AURORA, AXTELL, BANCROFT, BARADA, BASSETT, BAZILE MILLS, BEAVER CROSSING, BEE, BEEMER, BELDEN, BELLWOOD, BELVIDERE, BENEDICT, BERTRAND, BIG SPRINGS, BLADEN, BLOOMINGTON, BLUE SPRINGS, BOELUS, BRADY, BRISTOW, BROADWATER, BRULE, BRUNING, BRUNO, BRUNSWICK, BURCHARD, BUTTE.

CAIRO, CARLETON, CENTER, CHADRON, CHAPMAN, CLARKS, CLATONIA, CLAY CENTER, CLEARWATER, CLINTON, CODY, COLERIDGE, COMSTOCK, CONCORD, CORDOVA, CORTLAND, CRAIG, CRAWFORD, CREIGHTON, CROFTON, CROOKSTON, CUSHING, DANNEBROG, DAWSON, DAYKIN, DEWEESE, DIXON, DODGE, DONIPHAN, DUBOIS, DWIGHT, EDISON, ELBA, ELGIN, ELM CREEK, ELSIE, ELWOOD, EMMET, EUSTIS, EWING, EXETER, FAIRFIELD, FIRTH, FORDYCE, FUNK, GARLAND, GENEVA, GIBBON, GOEHNER, GORDON, GRAFTON, GREELEY, GRESHAM, GUIDE ROCK, HALLAM, HARDY, HARTINGTON, HARVARD, HAY SPRINGS, HEARTWELL, HENDERSON, HENDLEY, HOMER, HORDVILLE, HOSKINS, HUBBARD, HUMBOLDT, HUNTLEY, INMAN, JACKSON, KEARNEY, KENESAW, KILGORE.

LAWRENCE, LEWELLEN, LONG PINE, LOOMIS, LOUP CITY, LUSHTON, LYNCH, MCCOOK, MCCOOL JUNCTION, MCGREW, MCLEAN, MADRID, MAGENT, MARQUETTE, MARTINSBURG, MASKELL, MEADOW GROVE, MELBETA, MERRIMAN, MILFORD, MILLER, MILLIGAN, MINATARE, MURRAY.

NAPONEE, NEHAWKA, NENZEL, NEWCASTLE, NEWPORT, NORA, NORFOLK, NORTH LOUP, OAK, OAKDALE, OAKLAND, OBERT, OGALLALA, OHIOWA, O'NEILL, ONG, ORCHARD, ORLEANS, OSCEOLA, OSHKOSH, OSMOND, OVERTON, PAGE, PALMER, PAWNEE CITY, PHILLIPS, PICKRELL, PILGER, PINE RIDGE, PLATTSMOUTH, PLEASANT DALE, PLYMOUTH, PONCA.

RAVENNA, REPUBLICAN CITY, RISING CITY, RIVERTON, ROYAL, RUSHVILLE, RUSKIN, SARONVILLE, SCOTIA, SCOTTSBLUFF, SCRIBNER, SHELBY, SHELTON, SHUBERT, SILVER CREEK, STAMFORD, STAPLEHURST, STEINAUER, STELLA, STERLING, STOCKHAM, STRANG, SURPRISE, SUTHERLAND, SWANTON.

TABLE ROCK, TAMORA, TEKAMAH, THAYER, TILDEN, TOBIAS, UEHLING, ULYSSES, UNION, UTICA, VALPARAISO, VENANGO, VERDON, VIRGINIA, WACO, WATERBURY, WAUSA, WESTERN, WHITNEY, WINNEBAGO, WINNETOON, WOLBACH, WYNOT, YORK.

The following Nebraska communities own their own municipal electric systems which are operated by Loup Power District under lease agreements:

ALBION, BELGRADE, CEDAR RAPIDS, COLUMBUS, CORNLEA, CRESTON, DUNCAN, FULLERTON, GENOA, HOWELLS, HUMPHREY, LINDSAY, MONROE, NEWMAN GROVE, PETERSBURG, PLATTE CENTER, PRIMROSE, RAEVILLE, RICHLAND, ST. BERNARD, ST. EDWARD, TARNOV.

NEVADA

ALAMO POWER DISTRICT NO. 3, Box 189, Alamo, 89001, 702/725-3335, Douglas J. Miller, mgr.; 431 met.; no gen; pur. 8,758,222 kWh; rev. $210,413. (1942)

BOULDER CITY, City of Elec. Dist. Dept., 900 Arizona St., 89005, 702/293-4300, Terry Zerkle, city mgr.; 3,400 met.; no gen.; pur. 85.5 million kWh; rev. $1,276,000. (1960)

CALIENTE Pub. Utils., City Hall, Box 150, 89008, 702/726-3782, Roy F. McWilliams, supt., 560 met.; no gen.; pur. 13.5 million kWh; rev. $190,000. (1943)

COLORADO RIVER COMMISSION OF NEVADA, Box 19090, Las Vegas, 89132-0090, 702/739-1902, Duane R. Sudweeks, dir.; no gen.; 11 wholesale customers, sales 1.3 billion kWh; rev. $16 million.

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FALLON Mun. Elec. System, 55 W. Williams Ave., 89406, 702/423-5107, Ben T. Bartlett, P.E., city mgr.; 2,395 met.; no gen.; pur. 33,378,000 kWh; rev. $2,496,145. (1911)*

LINCOLN COUNTY POWER DIST. No. 1, SR 89063, Box 101, Pioche, 89043, 702/962-5122, William F. Lynch, mgr.; 95 met; no gen.; pur. 82,759,286 kWh; rev. $931,063. (1936)

MINERAL COUNTY POWER SYSTEM, Box 1457, Hawthorne, 89415, 702/945-2446, Martha Barlow, County Clerk, (System leased to Sierra Pacific Power Co. until year 2000.)

OVERTON POWER DISTRICT NO. 5, 261 S. Jones St., Box 374, Overton, 89040, 702/397-2512, A. Kent Bloomfield, mgr.; 2,101 met.; no gen.; pur. 73,648,636 kWh; rev. $1,691,519. (1939)

PIOCHE Pub. Util., Box 31, 89043, 702/962-5840, Patrick Kelly; 300 met.; no gen.; pur. 6,522,000 kWh; rev. $110,000.

TRUCKEE-CARSON IRRIGATION DISTRICT, 152 N. Maine, Fallon, 89406, 702/423-2141, Richard Lattin, mgr.; (Electrical system leased to Sierra Pacific Power Co.)

NEW HAMPSHIRE

ASHLAND, Town of, Elec. Dept., 10 Highland St., Box 517, 03217, 603/968-3083, Thomas E. Marsh, supt.; 860 met.; gen. 80 kW hydro, 223,538 kWh; pur. 15,480,000 kWh; rev. $1,147,910. (1917)

LITTLETON Water & Light Dept., 30 Lafayette Ave., 03561, 603/444-2915, John L. Cassidy, supt.; 3,400 met.; no gen.; pur. 36,901,700 kWh; rev. $2,467,026. (1903)

NEW HAMPTON Village Precinct, 03256, 603/744-3517, Ralph Ness, mgr.; 170 met.; no gen.; pur. 2,001,531 kWh; rev. $147,370. (1914)

WOLFEBORO Mun. Elec. Dept., Box 629, 03894, 603/569-1246, Guy L. Krapp, mgr.; 3,806 met.; gen. 109,300 kWh; pur. 32,988,000 kWh; rev. $2,266,109. (1897)

WOODSVILLE Water & Light Dept., 3 N. Court St., 03785, 603/747-2442, Hayden Waterhouse, supt.; 1,221 met.; no gen., pur. 10,880,490 kWh; rev. $499,375. (1922)

NEW JERSEY

BUTLER Light Dept., 10 High St., 07405, 201/838-7200, Robert P. Hammer, adm.; 7,446 met.; no gen.; pur. 4,342,370 kWh; rev. $6,975,458. (1942)

LAVALLETTE Elec. Dept., Washington Ave., 08735, 201/793-7766, Carl F. Ohm, supt.; 2,500 met.; no gen.; rev. $790,218. (1927)

MADISON Water & Light Dept., Kings Road, 07940, 201/377-8000, James Allison, borough adm.; 5,600 met.; no gen.; pur. 79,748,000 kWh; rev. $6,073,000. (1906)*

MILLTOWN Elec. Dept., 39 Washington Ave., 08850, 201/828-2100, G. R. Newman, supt.; 2,573 met.; no gen.; pur. 37,036,800 kWh; rev. $2,556,481.

PARK RIDGE Elec. Dept., 53 Park Ave., 07656, 201/391-2113, Robert F. Kenney, supt.; 3,061 met.; no gen.; pur. 36,672,000 kWh; rev. $2,467,056. (1904)*

PATERSON Municipal Utilities Authority, 100 Hamilton Plaza, 07505, 201/881-3368, John Topalian, atty. (Authority established in 1981 to rehabilitate hydro project on Passaic River.)

PEMBERTON, Borough of, Elec., 114 Hanover St., 08068, 609/894-8222, Harold Beck Sr., supt.; 500 met.; no gen.; pur. 5,880,000 kWh; rev. $480,000. (1921)

SEASIDE HEIGHTS Borough Elec., 328 Grant Ave., 08751, 201/793-0359, Leonard Ipri, supt.; 3,200 met.; no gen.

SOUTH RIVER Bd. of Pub. Works, 33 Gordon St., 08882, Thomas Noto, supt.; 6,767 met.; gen. 2,500 kW eng.; pur. 40 million kWh; rev. $1,953,728.*

VINELAND, City of, Mun. Elec. Util., Seventh and Wood Sts., 08360, 609/691-3000, ext. 460, Michael Sesok Jr., gen. mgr. of mun. utils.; 15,847 met.; gen. 96,000 kW, 24,000 kW coal, 40,000 kW oil, 32,000 kW oil (comb. turbine); 191,319,100 kWh; pur. 136,744,000 kWh; rev. $23,181,320. (1900)*

NEW MEXICO

AZTEC, City of, 201 W. Chaco, 87410, 505/334-9456, Rolfe Wagner, city mgr.; 2,199 met.; gen. 1,600 kW gas; pur. 20,972,670 kWh; rev. $1,045,533. (1956)*

CLAYTON Power Plant, 1 Chestnut St., 88415, 505/374-2711, Eli H. Garcia, city mgr.; 1,700 met.; gen. 6,150 kW dual-fuel eng., 16,117,800 kWh; pur. none; rev. $1,031,265. (1912)

FARMINGTON, City of, Elec. Util. System, Box 900, 87401, 505/327-7701, Wm. C. Lewis, elec. util. dir.; 25,729 met.; gen. 20,000 kW coal, 32,200 kW gas (steam turbine), 1,600 kW oil, 550 kW gas (combus. turbine), 250 kW hydro; 158,870,000 kWh; pur. 220,509,865 kWh, rev. $27,536,577. (1964)*

GALLUP City of, Box 1270, 87301, 505/863-6871 ext. 289, Paul McCollum, city mgr.; 7,682 met.; no gen.; pur. 158,899,328 kWh; rev. $9,071,428. (1941)*

LOS ALAMOS County, Box 30, Los Alamos, 87544, 505/662-8134, James Harder, util. mgr.; 4,573 met.; no gen.; pur. 48,572,358 kWh; rev. $3,425,400. (1967)*

RATON Pub. Service Co., 224 Savage Ave., Box 40, 87740, 505/445-9861, Nardi Gabriele, gen. mgr.; 4,508 met.; gen. 11,000 kW steam; 37,137,400 kWh; pur. 12,176,692 kWh; rev. $5,151,895. (1919)*

SPRINGER Elec. Dept., Box 488, 87747; 505/483-2682, Henry Arellano, city mgr.; 2,000 met.; no gen.; rev. $209,526.

TRUTH OR CONSEQUENCES, City of, Joint Util. system, 605 Sims St., 87901, 505/894-6674, Quentin Drunzer, city mgr.; 2,983 met.; no gen.; pur. 28,711,330 kWh; rev. $1,097,797. (1934?)

NEW YORK

AKRON Mun. Elec. Util., 21 Main St., Box 180, 14001, 716/542-9636, or 542-9604, Donald J. Whiting, mayor; 1,299 met.; no gen.; pur. 31,463,000 kWh; rev. $743,196. (1903)*

ANDOVER, Village of, Elec. Dept., 4 Main St., Box 721, 14806, 607/478-8455, Maynard Towner, supt.; 535 met.; no gen.; pur. 5,337,500 kWh; rev. $134,818. (1913)

ANGELICA, Village of, 14709, 716/466-7431, Paul Hollier, ofc. mgr.; 592 met.; no gen.; sales 6,350,000 kWh, rev. $155,676. (1930)

ARCADE Mun. Elec. Dept., 17 Church St., 14009, 716/492-1590, Howard W. Payne, supt. pub. wks.; 2,871 met.; no gen.; pur. 92,449,138 kWh; rev. $1,290,597. (1909)*

BATH Elec., Gas & Water Systems, Drawer 310, 14810, 607/776-3072, Wesley J. Payne, dir.; 3,583 met.; no gen.; pur. 59,241,000 kWh; rev. $1,213,449. (1915)*

BERGEN Village of, 16 N. Lake St., 14416, 716/494-1513, Roy G. Hill, supt. pub. wks; 477 met.; no gen.; pur. 10.8 million kWh; rev. $222,606. (1909)*

BOONVILLE Mun. Comm. of, Box 59, 13309, 315/942-4461, John W. Gilbert, supt.; 2,307 met.; no gen.; pur. 48,319,305 kWh; rev. $1,309,662. (1903)*

BROCTON Village of, 34 W. Main St., 14716, 716/792-4160, Rick Manzella, foreman; 704 met.; no gen., pur. 10,067,700 kWh; rev. $163,947. (1904)

CASTILLE Village of, 51 N. Main St., Box 179, 14427, 716/493-5340, Lynn D. Washburn, supt.; 552 met.; no gen.; pur. 5,501,946 kWh; rev. $123,395. (1903)

CHURCHVILLE, Mun. Elec., 9 E. Buffalo St., Box M, 14428, 716/293-3720, Ronald J. Trinkl, supt. pub. wrks., 640 met.; no gen.; pur. 11,030,700 kWh; rev. $261,189. (1921)*

ENDICOTT Mun. Light Plant, Municipal Plaza, 1009 E. Main St., 13760, 607/754-2450, Clark Vallequette, exec. sec'y; 2,849 met.; no gen.; pur. 42,240,835 kWh; rev. $1,019,334. (1906)*

FAIRPORT Mun. Comm., 31 S. Main St., 14450, Box 500, 716/223-0440, Robert N. Vaisey, gen. mgr., 10,846 met.; no gen.; pur. 265,398,360 kWh; rev. $6,481,071. (1901)*

FRANKFORT Mun. Elec., 107 W. Main St., 13340, 315/894-8811, John S. Migliore, supt.; 1,571 met.; no gen.; pur. 14,819,000 kWh; rev. $373,378. (1960)

FREEPORT Mun. Elec. Util., 46 N. Ocean Ave., 11520, 516/378-4000, Ludovic Long, supt. elec. utils., 13,814 met.; gen. 50,500 kW; 6,586,400 kWh; pur. 180,107,110 kWh; rev. $10,684,127. (1896)*

GOUVERNEUR, Village of, Municipal, 33 Clinton St., 13642, 315/287-1770, Ronald Cochrane,

supt.; gen. 160 kW hydro. (1923)

GREENE Elec. Dept., 49 Genesee St., Box 207, 13778, 607/656-4500, Harvey Stalker, supt.; 1,049 met.; no gen.; pur. 26,630,000 kWh; rev. $569,940

GREEN ISLAND Elec. Light Dept., 20 Clinton St., 12183, 518/273-2201, John W. Demarest, supt.; 1,186 met.; no gen.; pur. 8,140,700 kWh; rev. $286,169. (1895)

GREENPORT Mun. Elec. Light Plant, 236 Third St., 11944, 516/477-1748, James I. Monsell, supt.; 1,668 met.; gen. 6,100 kW dual-fuel; 357,000 kWh; pur. 17,866,000 kWh.; rev. $1,123,353. (1899)*

GROTON, Mun. Elec., 108 Cortland St., 13073, 607/898-3001, Edward Smith, supt., 813 met.; no gen.; sales 15,525,330 kWh; rev. $278,770. (1933)

HAMILTON Mun. Power System, Box 119, 13346, 315/824-1111, -1112, -2120, John Rathbone, village engr.; 1,378 met.; no gen.; pur. 43,222,000 kWh; rev. 1,170,862. (1895)*

HOLLEY Elec. & Water Dept., 7 Franklin St., 14470, 716/638-6367, Raymond E. Neale, supt.; 828 met.; no gen.; pur. 15.5 million kWh; $241,024.

ILION Bd. of Light Comm., Municipal Bldg., Morgan St., 13357, 315/895-7749, Kevin J. Manfreda, supt.; 3,811 met.; no gen.; pur. 56,028,010 kWh; rev. $1,091,857. (1901)*

JAMESTOWN Bd. of Pub. Util., 200-212 E. Third St., Box 700, 14701-0700, 716/661-2385, James S. Pullan, gen. mgr., 19,545 met.; gen. 50,000 kW steam, 255,529,100 kWh; pur. 285,096,423 kWh; rev. $9,960,128. (1891)*

LAKE PLACID Mun. Elec., 301 Main St., 12946, 518/523-2021, Charles White, supt.; 3,027 met.; no gen.; pur. 86,713,600 kWh; rev. $2,775,308. (1906)*

LITTLE VALLEY, Village of, Municipal Bldg., 14755, 716/938-9151, Lawrence R. Holtz, supt. pub. wks.; 966 met.; no gen.; pur. 15,658,909 kWh; rev. $282,175. (1896)*

MARATHON, Village of, Lighting Plant, 18 Tannery St., 13803, 607/849-6795, David K. Light, mayor; 750 met.; no gen.; pur. 15,047,000 kWh; rev. $414,055 (1901)

MASSENA Elec. Dept., 71 E. Hatfield St., Box 209, 13662, 315/764-0253, Clifford G. Engstrom, gen. mgr.; 7,956 met.; no gen.; pur. 94,007,355 kWh; rev. $4,615,757. (1981)*

MAYVILLE Elec. Light Dept., Box 188, 14757, 716/753-2125, Ray Frost, supt. pub. wks.; 750 met.; no gen.; pur. 14.9 million kWh; rev. $229,591. (1896)*

MOHAWK Mun. Comm., 28 Columbia St., 13407, 315/866-4170, William D. Wainwright, util. supt., 1,245 met.; no gen.; sales 16,306,295 kWh; rev. $400,455. (1904)*

NEW YORK POWER AUTHORITY, 10 Columbus Circle, New York, N.Y., 10019, 212/397-6200, Leroy W. Sinclair, pres.; 152 met.; gen. 6,886,000 kW, 4,107,000 kW hydro, 1,896,000 kW nuclear, 883,000 kW steam (oil/gas); 31,648,239,000 kWh; pur. 8,681,078,000 kWh, rev. $1,141,791,417. (1931)*

PENN YAN Mun. Bd., 2 Maiden Lane, 14527, 315/536-3374, Wesley G. Ryder, utils. mgr.; 2,599 met.; no gen.; pur. 46,051,300 kWh; rev. $920,727. (1905)*

PHILADELPHIA Mun. Elec. System, 56 Main St., 13673, 315/642-3452, Bernard A. Rosbrook, supt.; 370 met.; no gen.; pur. 7,342,000 kWh; rev. $202,951. (1906)

PLATTSBURGH Mun. Lighting Dept., 6 Miller St., 12901, 518/563-2200, George D. Reich, mgr.; 7,888 met.; no gen.; pur. 453,179,904 kWh; rev. $9,094,151. (1941)*

RICHMONDVILLE Power & Light, 22 E. Main St., 12149, 518/294-7700, George O. Davis, mgr.; 794 met.; no gen.; pur. 7,937,000 kWh; rev. $252,388. (1918)

ROCKVILLE CENTRE, Pub. Util., Box 950, 110 Maple Ave., 11571, 516/766-0300, Ext. 211, Patrick J. Hester, supt. of utils.; 9,942 met.; gen. 32,400 kW, 8,800 kW oil (eng.), 32,400 kW dual-fuel, 30,454,000 kWh; sales 132,136,328 kWh; rev. $6,036,749. (1898)*

ROUSES POINT, Village of, Box 185 Lake St., 12979, 518/297-5502, Terry Dunn, village adm.; 1,063 met.; no gen.; pur. 56,333,102 kWh; rev. $760,607. (1903)*

SALAMANCA Water & Light Dept., 225 Wildwood Ave., 14779, 716/945-3130, James M. Brundage, gen. mgr.; 3,236 met.; no gen.; pur. 48,792,200 kWh; rev. $1,262,906. (1913)

SHERBURNE, Village of, Mun. Elec., 15 W. State St., 13460, 607/674-2300, Edward F. Adwards, mayor; 1,703 met.; no gen.; pur. 38,060,000 kWh; rev. $781,040. (1907)*

SHERRILL, City of, Power and Light, 601 Sherrill Rd., 13461, 315/363-0780, Lawrence A. Pickard, mgr.; 1,448 met.; no gen.; pur. 50,116,000 kWh; rev. $992,450. (1977)*

SILVER SPRINGS, Village of, Elec. Dept., 43 Main St., 14550, 716/493-2500, Robert E. Kupp, supt. pub. wks.; 360 met.; no gen.; pur. 3,467,200 kWh; rev. $81,739. (1912)

SKANEATELES, Village of, Elec. Dept., 46 E. Genesee St., 13152, 315/685-5628, James A. Buff, supt.; 1,238 met.; no gen.; pur. 21,223,100 kWh; rev. $598,377. (1900)*

SOLVAY, Village of, Light Dept., 3143 Milton Ave., 13209, 315/468-6229, M. V. Raman, mgr.; 4,283 met.; no gen.; pur. 294,648,800 kWh; rev. $3,438,776. (1896)*

SPENCERPORT Mun. Elec., 27 West Ave., 14559, 716/352-4771, James C. Bleier, supt.; 1,967 met.; no gen.; pur. 47,329,200 kWh; rev. $797,913. (1916)*

SPRINGVILLE, Village of, Elec., 5 W. Main, 14141, 716/592-4936, John Lipoff, elec. supt.; 2,064 met.; gen. 520 kW hydro, 2,858,130 kWh; pur. 39,967,714 kWh; rev. $771,789. (1895)

THERESA, Mun. Light Comm., 217 Main St., 13691, 315/628-4425, Thomas O'Driscoll, mayor; 376 met.; no gen.; pur. 5,357,800 kWh; rev. $158,831. (1906)*

TUPPER LAKE Mun. Elec. System, 53 Park St., 12986, 518/359-3341, Donald T. Trudeau, elec. supt.; 2,745 met.; no gen.; pur. 61,225,200 kWh; rev. $1,812,438. (1903)*

WATERTOWN, City of, Elec. Dept., Municipal Bldg., 13601, 315/788-7020, John J. Donoghue, supt.; 54 met. gen. 5,400 kW hydro, 26.2 million kWh; pur. 1.6 million kWh; rev. $430,000. (1924)

WATKINS GLEN Elec. Dept., 303 N. Franklin St., 14891, 607/535-2736, John Barnes, lineman; 1,218 met.; no gen.; pur. 32,211,108 kWh; rev. $468,675. (1918)

WELLSVILLE, Village of, Water & Light Dept., 156 N. Main St., 14895, 716/593-4000, Donald MacFarquhar, supt.; 2,544 met.; no gen.; pur. 48,012,300 kWh; rev. $849,518. (1915)*

WESTFIELD Bd. of Pub. Utils., 23 Elm St., 14787, 716/326-2145, Richard A. Crofoot, supt.; 2,610 met.; no gen.; pur. 54,229,241 kWh; rev. $1,035,970,000. (1892)*

NORTH CAROLINA

ALBEMARLE Light Dept., Box 190, 28001, 704/982-0131, D. Lendell Smith Jr., dir. pub. wks.; 8,795 met.; no gen.; pur. 196.7 million kWh; rev. $5,561,090.*

APEX, Town of, Box 250, 27502, 919/362-8166, Ronald D. Wicker, dir. pub. wks.; 1,633 met.; no gen.; pur. 29.2 million kWh; rev. $1,253,431. (1916)*

AYDEN, Town of, Box 217, 28513, 919/746-4152, Mark A. Suggs, dir. of utils.; 3,189 met.; no gen.; pur. 44,169,312 kWh, rev. $2,513,399. (1915)*

BELHAVEN, Town of, Box 220, 27810, 919/943-3105, Jay Paul Harrison, elec. supt.; 1,137 met.; no gen.; pur. 16,252,800 kWh; rev. $870,675. (est. 1920)*

BENSON, Town of, Power & Light Dept., Box 157, 27504, 919/894-3553, Zeke Lucas, supt. pub. util.; 1,271 met.; no gen.; pur. 26,551,385 kWh; rev. $1,325,975. (1913)*

BLACK CREEK, Town of, W. Center St., Box 8, 27813, 919/243-6439, Jerry G. Crocker, supt. pub. works.; 499 met.; no gen.; pur. 6,397,200; rev. $418,211. (1922)*

BOSTIC Elec. Dept., 28018, 704/245-5108, Charles Morgan, supt. of lights, clerk; 151 met.; no gen.; pur. 1.6 million kWh; rev. $56,221.*

CHERRYVILLE, City of, Elec. Dept., 116 S. Mountain St., 28021, 704/435-4184, Ted Mace, dir. pub. works; 2,107 met.; no gen.; pur. 45,109,451 kWh; rev. $1,831,194.

(1906)*

CLAYTON, Town of, Lighting Dept., 231 E. Second St., Box 777, 27520, 919/553-5866, Edward Park, elec. supt.; 2,040 met.; no gen.; pur. 33,113,000 kWh; rev. $1,914,096. (1925)*

CONCORD Bd. of Light & Water Comm., Box 567, 28025, 704/786-6161, Don T. Howell, dir. util.; 11,824 met.; no gen.; pur. 239,612,351 kWh; rev. $11,132,158. (1901)

CORNELIUS Mun. Utils., Box 66, 28031, 704/892-6031, Kermit W. Ballard, dir. util., 584 met.; no gen.; pur. 9.2 million kWh; rev. $286,988.*

DALLAS Elec. Dept., 131 N. Gaston St., 28034, 704/922-3176, Scott Braddy, supt.; 2,912 met.; no gen.; pur. 37.5 million kWh; rev. $1,521,599. (1925)

DREXEL Elec. Dept., Box 188, 28619, 704/437-7421, Harold L. Dean, dir. util.; 912 met.; no gen.; pur. 10,791,705 kWh; rev. $469,440. (1927)*

EDENTON Utils., W. Freemason St., Box 300, 27932, 919/482-4414, William Crummey, dir. pub. utils.; 3,026 met.; no gen.; pur. 62.4 million kWh; rev. $3,561,565. (1900)*

ELIZABETH CITY, City of, Box 347, 27909, 919/338-3981, Tommy M. Combs, city mgr.; 8,399 met.; no gen.; pur. 172,980,000 kWh; rev. $10,477,098. (1923)*

ENFIELD Elec. Utils., Box 87, 27823, 919/445-5586, Joseph N. Adkins, util. dir.; 1,489 met.; no gen.; pur. 22.8 million kWh, rev. $880,945.

FARMVILLE, Town of, Box 87, 27828, 919/753-3021, James A. Wooten Jr., dir. of utils.; 2,245 met.; pur. 50,295,407 kWh; rev. $2,492,623. (1915)*

FAYETTEVILLE Pub. Wks. Comm., 508 Person St., Box 1089, 28302, 919/483-3814, Ray A. Muench Jr., mgr.; 50,158 met.; gen. 200,000 kW oil; 25,219,360 kWh; pur. 1,260,753,000 kWh; rev. $65,068,461. (1905)*

FOREST CITY Elec. Dept. 12 N. Powell St., 28043, 704/245-0148, Herb Toms, dir. pub. wks.; 3,728 met.; no gen.; pur. 81.9 million kWh; rev. $3,074,475.

FOUNTAIN Mun. Elec. Dept., Box 194, 27839, 919/749-2881, Floyd Lucas, dir.; 325 met.; no gen.; pur. 3.8 million kWh; rev. $174,723.*

FREMONT, Town of, Light & Water Dept. Box 818, 27830, 919/242-5151, Gary Davis, pub. works. dir.; 850 met.; no gen.; pur. 12,516,729 kWh; rev. $683,927. (1924)*

GASTONIA, City of, Elec. Div., Box 1748, 302 E. Airline Ave., 28052, 704/866-6818, E. Graham Wilson, dir. pub. util.; 20,171 met.; no gen.; pur. 442 million kWh; rev. $17,439,745. (1900)*

GRANITE FALLS Elec. Light Plant, Drawer 10, 28630, 704/396-3131, Dewey J. Cook, dir. pub. utils.; 1,357 met.; no gen.; pur. 22.8 million kWh; rev. $777,257.*

GREENVILLE Utils. Comm., Box 1847, 27834, 919/752-7166, Charles O'H. Horne Jr., dir. util.; 25,985 met.; no gen.; pur. 636,305,000 kWh; rev. $35,806,081. (1905)*

HAMILTON, Town of, Box 238, 27840, 919/798-2001, Nancy White, clerk; 251 met.; no gen.; pur. 3,071,630 kWh; rev. $190,286. (1922)*

HERTFORD Utils. Lighting System, Box 32, 27944, 919/426-5311, W. D. Cox, city mgr.; 1,333 met.; no gen.; pur. 15,838,030 kWh; rev. $1,072,883. (1918)*

HIGHLANDS Mun. Plant, Box 563, 28741, 704/526-2118, Arnold Keener, supt.; 1,370 met.; pur. 11.3 million kWh; rev. $209,044.

HIGH POINT, City of, Elec. Utils., Box 230, 27261, 919/887-2511, Lloyd Shank Jr., dir. elec. util.; 26,325 met.; no gen.; pur. 562,572,409 kWh; rev. $25,268,747. (1892)*

HOBGOOD Town of, Mun. Elec. Dept., Box 217, 27843, 919/826-4573, Eleanor C. Leggett, clerk; 308 met.; no gen.; pur. 3,751,600 kWh; rev. $252,320. (1921)*

HOOKERTON Town of, Elec. Dept., Box 296, 28538, 919/747-3816, Bennie Earl Oakes, supt.; 320 met.; no gen.; pur. 5,086,041 kWh; rev. $304,270.*

HUNTERSVILLE Elec. Dept., 28078, 704/875-6541, Richard L. French, mgr.; 562 met.; no gen.; pur. 15.1 million kWh; rev. $447,713.*

KINGS MOUNTAIN Mun. Elec. Dept., Box 429, 28086, 704/739-2563, John Henry Moss, Mayor; 3,377 met.; no gen.; pur. 70,495,362 kWh; rev. $3,145,657. (1903)

KINSTON, City of, Box 339, 28501, 919/527-2151, Elwood R. Whaley, dir.; 12,222 met.; no gen.; pur. 309,279,626 kWh; rev. $14,982,142.*

LA GRANGE, Town of, Box 368, 28551, 919/566-3186, E. B. Walters, util. dir.; 1,322 met.; no gen.; pur. 18,676,779 kWh; rev. $988,240*

LANDIS Light & Power Dept., 136 N. Central Ave., Box 8165, 28088, 704/857-2411, W. C. Deadmon, dir. util.; 2,253 met.; no gen.; pur. 33 million kWh; rev. $1,600,000.*

LAURINBURG, City of, Elec. Dept., Box 249, 28352, 919/276-8324, P. G. Vandenberg, city mgr.; 4,520 met.; no gen.; pur. 86,765,817 kWh; rev. $4,066,174. (1925)*

LEXINGTON, City of, Light & Power Dept., City Hall, 28 W. Center St., 27292, 704/246-2680, Bruce L. Kirk, supt.; 14,065 met.; no gen.; pur. 320,746,398 kWh; rev. $15,172,527. (1902)*

LINCOLNTON, City of, Light & Power Dept., Box 617, 28092, 704/732-2281, David E. Lowe, city mgr.; 2,211 met.; no gen.; rev. $1,608,871. (1900)*

LOUISBURG, Town of, 110 W. Nash St., 27549, 919/496-3406, Harold C. Foster, util. dir.; Tony Robertson, town admr.; 1,650 met.; no gen.; pur. 38,834,913 kWh; rev. $1,992,488.*

LUCAMA Light Plant, 27851, 919/239-0560, Dave Pittiman, dir. util.; 770 met.; no gen.; pur. 6.9 million kWh; rev. $172,271.*

LUMBERTON, City of, 420 Halsey St., 28358, 919/738-2255, Wayne Hedgepeth, elec. util. dir.; 7,893 met.; no gen.; pur. 209,041,472 kWh; rev. $10,184,190. (1915)*

MACCLESFIELD, Town of, Elec. Dept., Box 185, 27852, 919/827-4823, Wiley Ford, supt.; 300 met.; rev. $200,000. (est. 1928)*

MAIDEN, Town of, Box 125, 28650, 704/428-8178, David R. Walker, town mgr.; 832 met.; no gen.; pur. 34,000,000 kWh; rev. $1,467,279. (1928)*

MONROE, City of, Box 69, 28110, 704/289-8557, J. E. Hinkel, city mgr.; 5,905 met.; no gen.; pur. 274,246,400 kWh.; rev. $11,172,975.(1898)*

MORGANTON, City of, Drawer 430, 28655, 704/437-8863, Robin Blanton, elec. eng.; 7,003 met.; no gen.; pur. 199,404,720 kWh; rev. $7,865,617. (1908)*

MURPHY, Town of, Elec. Power Bd., Box 130, 28906, 704/837-2211, John Carringer, mgr.; 2,624 met.; no gen.; pur. 103,956,840 kWh; rev. $198,492. (TVA power distributor) (1953)

NEW BERN, City of, Box 1129, 28560, 919/633-5161, Henry A. Mahlmann, util., dir.; 11,457 met.; no gen.; pur. 258,333,838 kWh; rev. $12,453,798. (1906)*

NEW RIVER LIGHT & POWER CO., subsidiary of Appalachian State University, Box 1130, Boone, 28607, 704/264-3671, Donald R. Austin, gen. mgr.; 4,886 met.; no gen.; pur. 127,440,000 kWh; rev. $6,145,387. (1915)*

NEWTON Elec. Dept., Drawer 550, 28658, 704/464-2031, Glen P. Sims, dir. pub. utils.; 3,149 met.; no gen.; pur. 57.9 million kWh; rev. $1,992,609.*

OAK CITY Mun. Utils., 27857, 919/798-7721, Laurie Jogner, town clerk; 227 met.; no gen.; pur. 2,833,700 kWh; rev. $171,853.

PIKEVILLE, Town of, Box 9, 27863, 919/242-5126, Raymond B. Glover, town mgr.; 552 met.; no gen.; pur. 7,515,279 kWh; rev. $376,588. (1934)*

PINETOPS, Town of, Drawer C., 27864, 919/827-4435, Milton Carlton, town clerk; 699 met.; no gen.; pur. 13,569,600 kWh; rev. $784,480.(1927)*

PINEVILLE, Elec. Co., 200-208 Dover St., 28134, 704/889-2291, Jack G. Crump, town mgr.; 797 met.; no gen.; pur. 16,619,125 kWh; rev. $595,615. (1938)*

RED SPRINGS, Town of, 217 S. Main St., 28377, 919/843-5241, Paul Morrison, elec., supt.; 1,577 met.; no gen.; pur. 25,779,774 kWh; rev. $1,107,411*

ROBERSONVILLE Water & Light Comm., 27871, 919/795-4414, James S. Simpson, dir. util.; 1,160 met.; no gen.; pur. 19.5 million kWh; rev. $603,068.*

ROCKY MOUNT, Pub. Utils., One Government Plaza, 27801, 919/972-1271, Carl W. Bateman Jr., dir. util.; 22,531 met.; no gen.; pur. 583,551,577 kWh; rev. $28,186,733. (1902)*

SCOTLAND NECK, Town of, Box 537, 27874, 919/826-3712, Sidney R. Williams, dir. pub. utils.; 1,574 met.; no gen.; pur. 22,454,880 kWh; rev. $1,215,582.*

SELMA, Town of, 100 N. Raiford St., 27576, 919/965-9841, C. Fred Murray, elec. sup.; 1,991 met.; no gen.; pur. 37,548,990 kWh; rev. $1,926,590.*

SHARPSBURG Town Office, Box 305, 27878, 919/446-9441, J. D. Barkley, Mayor; 734 met.; no gen.; pur. 7.2 million kWh; rev. $531,569. (1920)*

SHELBY, City of, Box 207, 28150, 704/482-7367, Ralph B. Carlson, dir. util.; 7,081 met.; no gen.; pur. 148.6 million kWh; rev. $6,024,976. (1913)*

SMITHFIELD, Town of, Box 761, 27577, 919/934-2116, H. C. Talton, city mgr.; 4,500 met.; no gen.; pur. 85,483,000 kWh; rev. $3,780,918.*

SOUTHPORT, City of, 201 E. Moore St., 28461, 919/457-5460, James Splawn, util. dir.; 1,345 met.; no gen.; pur. 27,246,282 kWh; rev. $1,253,574. (1910)*

STANTONSBURG, Town of, Box 10, 27883, 919/238-3608, Roland L. Gardner, town mgr.; 1,009 met.; no gen.; pur. 12,470,400 kWh; rev. $838,854. (1928)*

STATESVILLE, City of, Light Dept., 227 S. Center St., Box 1111, 28677, 704/873-2121, Clyde E. Bagwell, dir. util.; 10,060 met.; no gen.; pur. 255,758,976 kWh; rev. $10,209,803. (1889)*

TARBORO, Town of, Box 220, 27886, 919/823-8121, Douglas Hathaway, dir. of elec. utils.; 4,932 met.; no gen.; pur. 186,538,558 kWh; rev. $10,146,263. (1898)*

WAKE FOREST, Town of, 400 E. Elm St., 27587, 919/556-2024, Jerry Walters, town adm.; 2,000 met.; no gen.; pur. 32,029,500 kWh; rev. $1,533,733. (1915)*

WALSTONBURG, Town of, Box 126, Mun. Plant, 27888, 919/753-5667, Leroy Langston Jr., mayor; 121 met.; no gen.; pur. 3,000,600 kWh; rev. $114,990. (1932)*

WASHINGTON, City of, Box 1988, 27889, 919/946-1033, Michael E. Finney, dir. elec. utils.; 10,129 met.; no gen.; pur. 170,736,400 kWh; rev. $9,729,072. (1910)*

WAYNESVILLE Mun. Elec. Dept., 28786, 704/456-3515, William L. Ross, dir.; 3,000 met.; no gen.; pur. 43.3 million kWh; rev. $1,479,422.

WILSON, City of, Box 10, 27893, 919/291-8111, T. Bruce Boyette, city mgr.; 22,478 met.; no gen.; pur. 721,807,807 kWh; rev. $34,461,465. (1892)*

WINDSOR, Town of, Box 508, 27983, 919/794-2331, David Overton, town adm.; 1,700 met.; no gen.; pur. 26,647,200 kWh; rev. $1,680,727. (1920)*

WINTERVILLE, Town of, Box 431, 28590, 919/756-2221, Harvey Lee Joyner, supt.; 1,018 met.; no gen.; pur. 17,150,400 kWh; rev. $1,031,044. (1890)*

NORTH DAKOTA

CAVALIER City Light & Power Plant, 58220, E. S. Thompson, mgr.; 564 met.; gen. 888 kW eng.*

GRAFTON, City of, Light Dept., 344 Hill Ave., Box 547, 58237, 701/352-2180, Mel Durand, actg. supt.; 2,142 met.; gen. 4,160 kW eng., pur. 40,020,243 kWh; rev. $1,023,981. (1890)*

HILLSBORO, City of, Box J, 58045, 701/436-4620, Winston Marsden, city comm. pres.; 800 met.; no gen.; pur. 20,940,087 kWh; rev. $535,599.*

HOPE City Light & Power, 58046, 701/945-2794, Mark Lemley, aldr.; 130 met.; no gen.; pur. 8,595,398 kWh; rev. $120,552.

LAKOTA Mun. Utils., Box 505, 58344, 701/247-2561, Ervin Anderson;, supt.; 479 met.; no gen.; pur. 10,724,800 kWh; rev. $256,126. (1930)*

MADDOCK, City of, Box 276, 58348, 701/438-2252, Odell A. Hakanson, util. supt.; 388 met.; no gen.; pur. 4,887,552 kWh; rev. $254,821. (1918)*

NORTHWOOD Mun. Light & Power Plant, 58267, 701/587-6291, Art Johnson, city supt.; 500 met.; no gen.; pur. 12.3 million kWh; rev. $354,000. (1912)*

PARK RIVER Mun. Light Plant, 340 Prospect Ave., 58270, 701/284-6399, Russell Lien, supt.; 840 met.; gen. 883 kW oil-fired eng.; 2913 kWh; pur. 17,642,080 kWh; rev. $444,246. (1901)

SHARON Light & Power Dept., 58277, Martin Jensen, mgr.; 112 met.

STANTON Mun. Power, Box 156, 58571, 701/745-3202, Marvin Leer, mayor; 275 met.; no gen.; pur. 5,000,000 kWh; rev. $428,687. (1974)

VALLEY CITY Mun. Utils., 254 2nd Ave. NE, Box 240, 58072, 701/845-0380, Leif Ravnaas, supt.; 3,774 met.; gen. 2,720 kW oil-fired eng.; pur. 78,370,200 kWh; rev. $1,874,290. (1891)*

OHIO

AMHERST Mun. Power & Light System, 647 Park Ave., 44001, 216/988-4224, Donald Woodings, supt.; 3,761 met.

ARCADIA Mun. Light & Power, Box 235, 44804, 419/894-6009, Vernon Seel, adm.; 270 met.; no gen.

ARCANUM Water & Light, 104 W. South St., 45304, 513/692-8565, Michael Clark, supt.; 1,269 met.; gen. 1,300 kW oil (eng.-diesel); 66,100 kWh; pur. 16,274,700 kWh; rev. $930,102. (1905)

BEACH CITY, Village of, Bd. of Public Affairs, 301 N. Church St., Box 328, 44608, 216/756-2011, Robert Raff, supt.; 700 met.; no gen.; pur. 6,763,825 kWh; rev. $364,770 (1919)*

BETHEL Bd. of Pub. Affairs, 235 W. Plane St., 45106, 513/734-2243, Dennis Barton, dist. supt.; 1,263 met.; no gen.; pur. 15.5 million kWh; rev. $382,110. (1904)

BLANCHESTER Bd. of Pub. Affairs, Box 158, 45107, 513/783-2141, Andrew Grieve, supt. of utils.; 1,600 met.; no gen.; sales 32,240,800 kWh; rev. $1,387,286. (1895)

BLOOMDALE Mun., 102 Maple St., Box 186, 44817, 419/454-2941, Raymon A. Taylor, village admr.; 300 met.; no gen.; pur. 2,702,400 kWh; rev. $128,501.*

BOWLING GREEN Utils., 304 N. Church St., 43402, 419/352-3541, Lyle B. Wright, dir. of utils.; 9,366 met.; no gen.; pur. 195,687,634 kWh; rev. $11,976,000. (1942)*

BRADNER Light and Water Plant, 130 N. Main, Box 516, 43406, 416/288-2890, John Stahl, supt.; 511 met.; no gen.; pur. 5,409,200 kWh.

BREWSTER Mun. Elec., 310 S. Wabash Ave., 44613, 216/767-4214, William Sessor, supt. elec. utils.; 885 met.; no gen.; pur. 16,769,195 kWh; rev. $957,923. (1912)*

BRYAN Mun. Utils., 841 E. Edgerton St., 43506, 419/636-4232, ext. 51, John Curtin, dir. of util.; 3,952 met.; no gen.; pur. 124,262,430 kWh; rev. $6,476,399. (1898)

CAREY Mun. Elec., 127 N. Vance St., 43316, 419/396-7681, Nelson E. Summit, village admr.; 1,575 met.; no gen.; pur. 54,624,000 kWh; rev. $2,180,710. (1909)*

CELINA Mun. Utils., 426 W. Market St., 45822, 419/586-6464, Thomas A. Schwartz, dir. of pub. serv. & safety; 6,081 met.; no gen.; pur. 112,192,935 kWh; rev. $5,433,355. (1900)*

CLEVELAND Public Power, 1201 Lakeside Ave., 44114, 216/664-2776, Joseph Pandy Jr., comm.; 46,204 met.; no gen.; pur. 574,042,190 kWh; rev. $35,334,027. (1906)*

COLUMBIANA, Village of, 28 W. Friend St., 44408, 216/482-2173, A. E. Wardingley, village mgr.; 2,427 met.; no gen.; pur. 29,586,821 kWh; rev. $1,731,321.

COLUMBUS, City of, Div. of Electricity, 50 W. Gay St., 43215, 614/222-8371, Henry A. Bell, supt.; 7,476 met.; no gen.; pur. 397,956,000 kWh; rev. $17,759,931. (1898)*

CUSTAR Mun. System, 23044 Defiance Pike, 43511, 419/669-7385, Edward Drummer, clerk; 125 met.; no gen.; pur. 1.5 million kWh.

CUYAHOGA FALLS Elec. System, 2550 Bailey Rd., 44221, 216/923-9921 ext. 311, C. O. Stout, supt.; 18,602 met.; no gen. pur. 224,592,000 kWh; rev. $13,644,563. (1899)*

CYGNET Mun. Light Dept., Box 55, 43413, 419/655-2191, Tom Strickland, supt.; 258 met.; no gen.; pur. 2.5 million kWh; rev. $45,111. (1916)*

DESHLER Mun. Utils., City Building, East North St., 43516, 419/278-1831, John S. Monteith, supt. of utils.; 889 met.; no gen.; pur. 14,519,000 kWh; rev. $683,029. (1916)*

DOVER Mun. Light & Power, E. Third St., 44622, 216/343-7725, Paul Wilson, dist. supt.; 6,596 met.; gen. 30,000 kW coal (steam turbine), 2,665 kW oil (eng.); 62,961,400 kWh; pur. 33,646,000 kWh; rev. $4,000,000. (1900)

EDGERTON Utils., 101 S. Michigan, Box 608, 43517, 419/298-2912 or 2722, Dale A. Mathys, village admin.; 756 met.; no gen.; pur. 10,662,140 kWh; rev. $702,534. (1937)*

ELDORADO Light & Water, 200 N. Main St., 45321, 513/273-3141, Robert Wehrley, supt.; 230 met.; no gen.; pur. 2.8 milllion kWh. (1940)

ELMORE, Village of, Bd. of Pub. Affairs, 340 Clinton St., 43416, 419/862-3454, Merle Harder, village supt.; 731 met.; no gen.; pur. 6,248,850 kWh; rev. $421,089. (1911)

GALION Mun. Light & Power, 700 Primrose, 44833, 419/468-5520, G. W. Butterfield, supt.; 6,238 met.; no gen.; pur. 95,268,188 kWh; rev. $5,650,330. (early 1900s)*

GENOA Mun. Light Plant, 102 E. 6th St., 43430, 419/855-8419, Wayne Smith, gen. supt.; 870 met.; no gen.; pur. 10.3 million kWh; rev. $518,000. (1925)

GEORGETOWN Mun. Light Plant, 301 S. Main St., 45121, 513/378-6144, Harold Howser, supt.; 2,000 met.; no gen.; pur. 24.5 million kWh.

GLOUSTER Water & Elec. Dept., 16 Front St., 45732, 614/767-3497, Delbert Skinner, supt.; 1,045 met.; no gen.; pur. 7.2 million kWh; rev. $151,089. (1924)

GRAFTON, Village Elec., 1009 Chestnut St., 44044, 216/926-2401 Allen Bartlett, village admin.; 843 met.; no gen.; pur. 11,762,158 kWh; rev. $663,631.

GREENWICH Mun. Water & Light, 47 Main St., 44837, 419/752-4725, Thomas Baker, supt.; 609 met.; no gen.; pur. 8.8 million kWh.

HAMERSVILLE Bd. of Pub. Affairs, Box 146, 45130, 513/379-1716, Kay Elliott, clerk; 3,761 met.

HAMILTON Pub. Utils., 20 High St., 45011, 513/868-5966, E. Leon Daggett, dir. of utils.; 24,680 met.; gen. 83,000 kW coal, 19,000 kW gas (steam turbine), 26,000 kW gas (combus. turbine), 700 kW hydro; 323,341,833 kWh; pur. 113,210,280 kWh; rev. $19,424,073 (1929)*

HASKINS Mun. Light & Power, 43525, 419/353-5443, Delton Asmus, mayor; 200 met.; no gen.

HUBBARD, City of, Mun. Light & Power System, 13 W. Liberty St., 44425, 216/534-3054, Robert Randall, utils. supt.; 3,309 met.; no gen.; pur. 51,081,730 kWh; rev. $2,612,515.*

HUDSON, Village of, Mun. Elec., 27 E. Main, 44236, 216/650-1052, Wilmer Jacoby, supt.; 4,175 met.; no gen.; pur. 71,520,000 kWh; rev. $2,908,000. (1911)

JACKSON Mun. Elec. System, Box 664, 45640, 614/286-4415, William McManis, supt.; 3,695 met.; no gen.; sales 27,793,052 kWh; rev. $1,756,230. (1890)

JACKSON CENTER, Village of, Mun. Elec. System, 122 E. Pike, 45334, 513/596-5440, Richard Sailor, village adm.; 565 met.; no gen.; pur. 12,068,557 kWh; rev. $851,534. (1920)

LAKEVIEW Bd. of Pub. Affairs, 310 N. Main St., Box 197, 43331, 513/843-2851, Sandra S. Peyton, clerk; 960 met.; no gen.; pur. 6,859,170 kWh. (1912)

LEBANON, City of, City Bldg., 40 S. Broadway, 45036, 513/932-3060, Timothy Hansley, city mgr.; 4,802 met.; gen. 7,000 kW oil (combus. turbine), 13,000 kW dual-fuel (eng.); pur. 80,189,483 kWh; rev. $4,668,634. (1898)*

LODI Power & Light, 108 Ainsworth St., 44254, 216/948-1099, Carl Zdelar, supt.; 1,612 met.; no gen.; pur. 22,786,960 kWh; rev. $1,479,135. (1942)*

LUCAS Bd. of Pub. Affairs, Box 213, 44843, 419/892-2178, James Sprang, supt.; 306 met.; pur. 3.0 million kWh.

MARSHALLVILLE Mun. Utils. Dept., Box 227, 44645, 216/855-4241, Herb Brillhart, supt; 300 met.; no gen.; pur. 2 million kWh.

MENDON Bd. of Pub. Affairs, Box 164, 45862, 419/795-3901, Lawrence J. Dicke, supt.; 300 met.; no gen.; pur. 1.7 million kWh; rev. $37,959.

MILAN Mun. Elec. Sys., S. Main St., Box 1450, 44846, 419/499-2133, Larry Doerner, supt.; 644 met.; no gen.; pur. 7,858,000 kWh; rev. $559,266. (1907)

MINSTER Elec., 29 S. Hanover St., 45865, 419/628-2850, Edward A. Bruns, supt.; 998 met.; no gen.; pur. 44 million kWh; rev. $1,693,081. (1910)*

MONROEVILLE Mun. Elec., 8 Monroe St., Box 156, 44847, 419/465-4149, Joe Gravenhorst, supt.; 785 met.; no gen.; pur. 12,341,800 kWh; rev. $698,700. (1906)*

MONTPELIER Mun. Light, 211 N. Jonesville St., Box 148, 43543, 419/485-3693, John H. Bitler, admr.; 1,939 met.; no gen.; pur. 30,348,000 kWh; rev. $1,854,014. (1893)

NAPOLEON City of, Light and Power, 255 W. Riverview, Box 151, 43545, 419/592-4010, Dave Mullholand, elec. dist. supt.; 4,745 met.; no gen. pur. 106.4 million kWh; rev. $5,432,052. (1894)*

NEW BREMEN Elec. Dist. System, 214 N. Washington St., Box 27, 45869, 419/629-2447, Clarence B. Art, village adm ; 1,049 met.; no gen.; pur. 31,630,487 kWh; rev. $1,489,385.

NEW KNOXVILLE Village Light Dept., Box 246, 45871, 419/753-2160, Bob Scheblo, village adm.; 405 met.; no gen.; pur. 4.4 million kWh; rev. $224,112.

NEWTON FALLS, City of, Light & Power, 52 E. Church St., 44444, 216/872-7711, R. P. Galgoci, supt.; 2,200 met.; no gen.; pur. 25.4 million kWh; rev. $1,223,773.

NILES, City of, Water & Light, 34 W. State St., 44446, 216/652-2622, Charles W. Burgess, supt.; 11,011 met.; no gen.; pur. 188,496,000 kWh; rev. $10,950,943.

OAK HARBOR, Light and Water Dept., 146 Church St., Box 232, 43449, 419/898-3881, Kenley C. Wood, supt., light and water dept.; 1,263 met.; no gen.; pur. 15,349,416 kWh; rev. $780,441. (1914)*

OBERLIN Mun. Light & Power System, 289 S. Professor St., 44074-1598, 216/775-1531, Roger Merriman, dir.; 3,761 met.; gen. 3,742 kW oil-fired, 8,150 kW dual-fuel; 8,754,800 kWh; pur. 60,480,000 kWh; rev. $4,057,962. (1934)*

OHIO CITY Mun. Power, Box 248, 45874, 419/965-2255, Betty Spitler, clerk-treas.; 545 met. (1930)

ORRVILLE, City of, Dept. of Pub. Utils.; Box 126, 44667, 216/683-8715, Robert A. Nichols, dir. util.; 5,382 met.; gen. 47,600 kW, 47,000 kW coal, 600 kW oil-fired; 175,571,780 kWh; pur. 24,990,000 kWh; rev. $8,702,209. (1917)*

PAINESVILLE, City of, 7 Richmond St., Box 601, 44077, 216/352-9301, Thomas Green, elec. power supt.; 9,193 met.; gen. 51,500 kW steam; 123,056,100 kWh; pur. 30,493,100 kWh; rev. $7,550,639. (1888)

PEMBERVILLE, Village of, Bd. of Pub. Affairs, 115 Main St., Box 109, 43450, 419/287-3832, Don Oberhouse, pres., bd. of pub. affairs; 619 met.; no gen. pur. 7,890,000 kWh; rev. $554,197. (1914)

PIONEER Bd. of Pub. Affairs, 106 First St., Box 335, 43554, 419/737-2614, T. E. Williams, supt.; 470 met.; no gen.; pur. 6.8 million kWh. (1912)

PIQUA Mun. Power System, 919 S. Main St., 45356, 513/778-2077, H. E. Hastings, dir.; 9,253 met.; gen. 60,000 kW, 40,000 kW coal, 20,000 kW oil turbine; 158,204,988 kWh; pur. 27,226,000 kWh; rev. $9,287,073. (1933)*

PLYMOUTH, Village of, Elec. Dept., 28 Sandusky St., 44865, 419/687-4331, James Root, adm.; 829 met.; no gen.; pur. 8,227,859 kWh; rev. $431,900. (1910)

PROSPECT Mun. Elec. System, Box 186, 43342, 614/494-2100, Leonard G. Ahmay, supt.; 630 met.; no gen.; pur. 6.5 million kWh; rev. $314,329. (1937)*

REPUBLIC Bd. of Pub. Affairs, 219 Washington, Box 68, 44867, 419/585-5981, Edwin D. Porter, supt.; 306 met.; no gen.; pur. 2,844,775 kWh; rev. $143,137.

RIPLEY Mun. Electricity, 14 N. Third, 45167, 513/392-4377, Carl Judy, supt.; 1,200 met.; no gen.; pur 10.6 million kWh.

ST. CLAIRSVILLE Mun. Utils., 100 Market, Box 537, 43950, 614/695-1410, Dannis Banash, supt; 2,413 met.; no gen.; pur. 33.2 million kWh.

ST. MARYS, City of, Mun. Elec., 101 E. Spring St., 45885, 419/394-3303, Kenneth L. Hegemann, service and safety dir.; 3,490 met.; gen. 12,900 kW, 12,300 kW steam, 600 kW oil (comb. turbine); 47,984,400 kWh; pur. 38,210,258 kWh; rev. $4,205,471. (1890)*

SEVILLE Bd. of Pub. Affairs, 40 W. Main St., 44273, 216/769-2458, Harold Baker, supt.; 1,011 met.; no gen.; sales 15,104 kWh; rev. $903,863. (1914)*

SHELBY Dept. of Utils., 23 E. Main St., Box 311, 44875, 419/342-4085, David Burford, util. sec.; 4,335 met.; gen. 40,500 kW, 37,500 kW steam, 3,000 kW eng., 80.6 million kWh; pur. none; rev. $1,995,006. (1892)

SHILOH Mun., Box 242, 44878, 419/896-2011, Robert Adams, supt.; 279 met.; no gen.; pur. 2.7 million kWh.

SOUTH VIENNA Corp., 16 N. Urbana St., 45369, 513/568-4311, Cathie Hurst, clerk; 186 met.; no gen.; sales 2,594 kWh; rev. $126,051.

SYCAMORE Light & Water Dept., 208 S. Pemberton St., 44882, 419/927-4262, Howard E. Feasel, supt.; 450 met.; no gen.; pur. 1 million kWh. (1930)

TIPP CITY Mun. Utils., 3 E. Main St., 45371, 513/667-8424, Steve Husemann, city mgr.; 2,668 met.; no gen.; sales 60,147,133 kWh; rev. $2,867,110. (1897)

TONTOGANY Bd. of Pub. Affairs, Box 153, 43565, 419/823-4233, Ralph Wires, pres., 190 met.; no gen.; pur. 0.2 million kWh.

VERSAILLES Utils., 6 S. Center St., 45380, 513/526-4191, David Siebel, village admin.; 1,365 met.; no gen.; pur. 24,788,221 kWh; rev. $1,366,979. (1901)*

WADSWORTH Mun., 145 High St., 44281, 216/335-1521, William J. Lyren, dir. of pub. serv.; 7,683 met.; no gen.; pur. 137,704,400; rev. $8,052,610. (1903)*

WAPAKONETA, City of, Light & Power, 102 Perry St., 45895, 419/738-7713, Lewis R. Knoch, supt.; 4,287 met.; no gen.; pur. 104,671,680 kWh. (1892)*

WAYNESFIELD Bd. of Pub. Affairs, 45896, 419/568-4991, Lon Zimmerman, chair.; 350 met., no gen.; pur. 4.8 million kWh.

WELLINGTON Mun. Utils., 115 Willard Sq., 44090, 216/647-4626, Robert A. Dupee, dir. of utils.; 1,866 met.; no gen.; pur. 37,180,960 kWh; rev. $2,459,262. (1900)*

WESTERVILLE, City of, Elec. Div., 139 E. Broadway, 43081, 614/890-8540, Harold M. Evans, supt.; 8,573 met.; no gen.; pur. 192,315,000 kWh; rev. $9,951,825. (1898)*

WHARTON Bd. of Pub. Affairs, Box 266, 43359, 419/458-2121, Calvin J. Pever, clerk; 191 met.; no gen.; pur. 1,500,000 kWh; rev. $100,343. (1935)

WOODSFIELD Bd. of Pub. Affairs, 203 Roy St., 43793, 614/472-3841, Ellis Smithberger, supt.; 1,200 met.

WOODVILLE Light, 212 Bridge St., 43469, 419/849-3031, Ted Bowan, adm.; 838 met.; no gen.; pur. 8.0 million kWh.

YELLOW SPRINGS, Village of, Mun. Util., 314 Dayton St., 45387, 513/767-7202, Kent Bristol, village mgr.; 1,847 met.; no gen.; pur. 32,074,696 kWh; rev. $1,751 529.*

OKLAHOMA

ALTUS, City of Elec. Dept., Box 914, 73521, 405/477-1950, Ron Bourbeau, city adm.; 8,727 met.; no gen.; pur. 115.2 million kWh, rev. $5,323,394. (1929)*

AMORITA Light & Power, City Hall, 73719, 405/474-2623, Jerry R. Blevins, mayor; 50 met.; no gen.; pur. 300,000 kWh.

ANADARKO Pub. Wks. Auth., Box 647, 73005, 405/247-2481, Jack Jeuback, city mgr.; 2,812 met.; no gen.; sales 40,189,248 kWh; rev. $1,806,107.

BLACKWELL, City of, Municipal Auth., Box 350, 74631, 405/363-4312, Drake N. Rice, city mgr.; 4,201 met.; no gen.; pur. 77,938,000 kWh; rev. $4,083,603. (1913)*

BRAMAN, Town of, 308 Broadway, 74632, 405/385-2169, Devern L. Miller, city clerk, 200 met.; no gen.; pur. 1,558,800 kWh; rev. $91,368. (1924)

BURLINGTON, Town of, Box 216, 73722, 405/431-2550, Ray Thompson, admin.; 110 met.; pur. 1,522,200 kWh; rev. $117,129. (1932)

BYRON, Town of, 73723.; James M. Guffy, mayor, 44 met.; no gen.; pur. 412,600 kWh.

CARMEN, Box 98, 73726, 405/987-2321, Loren H. Cramer, elec. supt.

CHELSEA, Town of, Box 48, 74016, 918/789-2315, C. C. Drumheller, elec. supt.; 993 met.; no gen., sales 9,600,000 kWh.

CHEROKEE, City of, Mun. Light & Water Dept., City Hall, 121 North Grand, Box 288, 73728, 405/596-3052; Don Groves, city mgr.; 1,400 met.; gen. 5,000 kW dual-fuel (eng.), 3,654,700 kWh; pur. 17,625,033 kWh; rev. $962,000. (1910)

CLAREMORE Mun. Light & Water Dept., 104 S. Muskogee, Box 249, 74017, 918/341-1325, Don Gilbert, supt.; 5,826 met.; no gen.; pur. 80 million kWh; rev. $1,366,836.

COLLINSVILLE Elec. Dept., 106 N. 12th, Box A, 74021, 918/371-2811, John P. Phillips, mayor; 1,300 met.; no gen.

COMANCHE, City of, 115 N. Second, 73529, 405/439-8832, Bergl Blair, elec. supt.; 1,000 met.; no gen.; pur. 12.7 million kWh; rev. $350,674. (1912)

COPAN Light, Water & Gas System, Box 219, 74022, 918/532-4114, Steve Shedd, elec. supt.; 420 met.; no gen.; pur. 2.6 million kWh; rev. $145,349. (1936)

CORDELL, City of, 101 E. Main St., 73632, 405/832-3825, Danny Lenaburg, elec. supt.; 1,700 met.; no gen.; pur. 24 million kWh; rev. $173,219. (1910)

CUSHING, City of, Mun. Light & Power, City Hall, Box 311, 74023, 918/225-0790, L. W. Hargrove, city mgr.; 3,950 met.; gen. 13,000 kW dual-fuel (eng.), 60,000,000 kWh; pur. 33,000,000 kWh. (1935)

DUNCAN Power & Light Dept., City Hall, Box 969, 73533, 405/252-0250, Don Howland, mgr.; 6,560 met.; no gen.; pur. 56.4 million kWh; rev. $4,859,593. (1921)*

EDMOND Pub. Works Auth., 315 SW 33rd St., Box 2970, 73083, 405/348-8830, ext. 291, Dallas D. Graham, city mgr.; 12,970 met.; no gen.; pur. 269,807,196 kWh; rev. $12,413,422. (1912)*

ELDORADO Light Dept., 107 S. Fourth, Box 190, 73537, 405/633-2245, Harold Conwell, supt.; 400 meters; no gen.

FAIRVIEW, City of, Box 386, 73737, 405/227-4416, Dixie J. Blackledge, city mgr.; 1,645 met.; gen. 2,300 kW, 7,000 kWh cycle; sales 24,244,107 kWh; rev. $1,754,586. (1908)*

FORT SUPPLY, Town of, Box 156, 73841, 405/766-3211, Jesse Wilson, power supt.; 260 met.; no gen.

FREDERICK, City of Elec. Dept., 200 W. Grand Ave., Box 399, 73542, 405/335-2714, Owen W. Fry, mayor, 2,900 met.; no gen.; pur. 46,281,028 kWh; rev. $1,961,833. (1917)

GEARY Mun. Light & Water Dept., Box 125, 73040, 405/884-5466, Chuck Johnson, elec. supt.; 718 met.; no gen.; rev. $404,200.

GOLTRY Mun. Lighting, Box 236, 73739, 405/496-2441, J. Gary Voss, elec. supt.; 158 met.; no gen.; pur. 2,556,400 kWh, rev. $81,004.

GRAND RIVER DAM AUTHORITY, 707 S. Wilson, Drawer G, Vinita, 74301, 918/256-5545, James D. Pendergrass, gen. mgr.; 62 met.; gen. 490,000 kW coal, 50,000 kW gas (steam turbine), 458,400 kW hydro; 2,600,000,000 kWh; pur. 454,760,000 kWh; rev. $103,896,327. (1935)*

GRANITE, Town of, Box 116, 73547, 405/535-2116, E. J. Hahn, city clerk, utility supt.; 565 met.; no gen.; pur. 6,312,322 kWh; rev. $285,361. (1920)

HOMINY Elec. Dept., 314 W. Third St., Box 219, 74035, 918/885-2164, Allen Bates, mgr.; 1,878 met.; no gen.; rev. $276,614.

KAW CITY, City of, Box 26, 74641, 405/269-2525, Velda Rundle, city clk., 142 met.; no gen.; pur. 1,754,484 kWh; rev. $16,962.

KINGFISHER, City of, 301 N. Main, 73750, 405/375-3705, Vernie Snow, mgr.; 2,000 met.; gen. 11,200 kW, 2,500 kW steam, 8,700 kW eng., 18.6 million kWh; pur. none; rev. $565,122. (1900)

LAVERNE Mun. Elec. Light Plant, Box 4301, 73848, 405/921-5121, Jay D. McCoy, elec. supt.; 770 met.; gen. 1,100 kW eng.

LEXINGTON Elec. Dept., Drawer D, 73051, 405/527-3179, Chuck Tiller, elec. supt.; 900 met.; no gen.; pur. 27,000 kWh; rev. $253,000. (1951)

LINDSAY Elec. Dept., 308 S. W. Second, Box 708, 73052, 405/756-4900, Kenneth I. McCabe, city mgr.; 1,470 met.; gen. 9,974 kW eng., 18.8 million kWh; pur. none; rev. $412,770. (1915)

MANCHESTER Light & Power Dept., Box 5, 73758, 405/694-2340, L. E. Toole, elec. supt.

MANGUM Utils. Auth., 201 N. Oklahoma St., 73554, 405/782-2256, Gerald Hukill, city mgr.; 2,283 met.; gen. 6,500 kW dual-fuel (eng.), 4,458,500 kWh; pur. 18,695,200 kWh; rev. $1,437,517. (pre-1929)

MANITOU Light Dept., 73555, 405/397-2241, Genevieve Meadows, city clerk; 300 met.

MANNFORD Elec. Dept., Box 327, 74044, 918/865-4314, W. P. Adkins, pub. works dir.; 405 met.; no gen.; rev. $110,911.

MARLOW Light & Water Dept., 318 W. Main St., Box 113, 73055, 405/658-5401, 1,735 met.; gen. 5,642 kW eng., rev. $308,673.

MIAMI Util. Dept., 129 Fifth Ave., N.W., Box 309, 74354, 918/542-8478, John C. Woody, gen. mgr.; 6,372 met.; no gen.; pur. 106,458,240 kWh; rev. $5,062,184. (1910)

MOORELAND, Town of, Light & Power, Box 157, 73852, 405/994-5925, Dean Hensley, supt.; 705 met.; no gen.; sales 8,193,600 kWh; rev. $299,433. (1908)

NEWKIRK Mun. Utils., Box 469, 74647, 405/362-2117, Harold J.

Harris, city mgr.; 1,300 met.; no gen.; pur. 13,000,000 kWh; rev. $776,500. (1918)

OKEENE Light & Water Dept., 213 N. Main St., Drawer F, 73763, 405/822-3197, Don Rauh, supt.; 600 met.; gen. 3,000 kW eng.; rev. $207,312.

OLUSTEE, Town of, Box 330, 73560, 405/648-2288, Kenneth Reynolds, elec. supt.; gen.

ORLANDO Light System, Box 27, 73073, 405/455-3825, Alta Branen, mayor; no gen.

PAWHUSKA Light & Water Plant, 700 W. Tenth St., Box 539, 74056, 918/287-3260, Harvey Massey, city mgr.; 2,682 met.; gen. 8,700 kW dual-fuel; 625,000 kWh; pur. 33,212,032 kWh; rev. $1,688,370. (1907)

PAWNEE Mun. Light & Water Dept., 614 Kansas St., Box 130, 74058, 918/762-2658, Tommy Creager, elec. supt.; 1,200 met.; no gen.; pur. 13 million kWh; rev. $261,476.

PERRY, City of, Water & Light Dept., Box 111, 73077, 405/336-4241, Charles J. Bezdicek, util. mgr.; 3,240 met.; no gen.; pur. 57,780,000 kWh; rev. $3,060,902. (1922)

PONCA CITY City Light Dept., Box 1450, 74602, 405/765-6653, Charles L. Silvy, dir., utils.; 15,365 met.; gen. 58,000 gas (steam turbine), 29,000 kW dual-fuel (eng.), 6,911,000 kWh; pur. 248,620,000 kWh; rev. $13,095,198. (1914)

POND CREEK Water & Light Dept., Box 45, 73766, 405/532-4915, Richard Dillon, elec. supt.; 552 met., no gen.; pur. 4 million kWh; rev. $114,930.

PRAGUE Mun Utils., Box 648, 74864, 405/567-2601, Harold Behrnes, pub. wks. supt., 1,100 met.; no gen.; pur. 18,400,890 kWh; rev. $854,785. (1902)

PRYOR Mun. Util. Bd., Box 249, 74362, 918/825-2100, Bob Pierson, gen. mgr.; 3,934 met.; no gen.; pur. 61,500,000 kWh; rev. $3,209,070. (1951)

PURCELL Pub. Works Auth., 230 W. Main, Box 71, 73080, 405/527-6561, Royce Hunter, city mgr., 4,600 met.; no gen.; pur. 38,788,800 kWh; rev. $1,386,155.

RYAN Mun. Light & Water Plant, Box 489, 73565, 405/757-2406, Homer Ryan, city mgr.; 515 met.; no gen.; pur. 5,706,792 kWh; rev. $264,421.

SALLISAW Light & Power Dept., 111 N. Elm, Drawer C, 74955, 918/775-6241, James R. Hudgens, city mgr.; 2,898 met.; no gen.; pur. 72,113,100 kWh; rev. $2,834,407. (1914)

SKIATOOK Elec. Dept., City Hall, Box 399, 74070, 918/396-2797, Monte Gondles Jr., adm. asst.; no gen.; pur. 21.6 million kWh.

SOUTH COFFEYVILLE Mun. Elec. System, Drawer C, 74072, 918/225-6045, Carl Yates, mayor; 350 met.; no gen.; pur. 2 million kWh; rev. $158,544.

SPIRO Mun. Improvement Auth., 131 S. Main St., 74959; 918/962-2470, Stearl Nelson, mayor; 925 met.; no gen.; rev. $397,341.

STILLWATER Utils. Auth., Box 1449, 74076, 405/372-0025, Karl Stadler, dir. elec. utils; 16,734 met.; gen. 24,000 kW gas (steam turbine), 3,331,900 kWh; pur. 272,829,818 kWh; rev. $12,685,000. (1900)*

STILWELL Util. Dept., Box 840, 74960, 918/696-2154, Page G. Arnall, supt. util.; 1,373 met.; no gen.; pur. 29,968,300 kWh, rev. $1,480,633. (1952)

STROUD Water & Light Dept., Drawer K, 74079; 918/968-2890, Bruce Stone, mgr.; 1,360 met.; no gen.; pur. 20,677,998 kWh; rev. $1,189,000. (1927)

TAHLEQUAH Pub. Wks. Auth., Box 29, 74464, 918/456-2564, J. M. Hicks, gen. mgr.; 4,167 met.; no gen.; pur. 68,805,561 kWh; rev. $3,413,628. (1923)

TECUMSEH Util. Authority, 114 N. Broadway, 74873, 405/598-2188, Wm. Charles Martin, city mgr.; 1,907 met.; no gen.; sales 20,779,871 kWh, rev. $998,196.

TONKAWA Mun. Power Plant, 117 S. Seventh, Box 467, 74653, 405/628-2508, J. E. Ditmore, mgr.; 1,617 met.; gen. 5,500 kW eng., 12.5 million kWh; pur. 6 million kWh; rev. $387,030. (1925)

WAGONER Pub. Wks. Auth., 231 Church St., Box 406, 74467, 918/485-2554, Elvin E. Neel, mgr.; 3,353 met.; no gen.; sales 45,000,000 kWh; rev. $2,428,425.

WALTERS Pub. Works Auth., 129 E. Colorado St., Box 485, 73572, 405/875-3337, Judy Reece, city clerk; 1,404 met.; no gen.; pur. 17,052,840 kWh; rev. $735,095. (1923)*

WATONGA Water & Light System, Weigel St., Box 564, 73772, 405/623-7353, Kenneth Marshall, elec. supt.; 1,825 met.; no gen.; rev. $491,125.

WAYNOKA Light & Power, 201 E. Cecil St., 73860, 405/824-2261, Ray Gamble, elec. supt.; 848 met.; no gen.; pur. 7.5 million kWh.

WELEETKA, 74880. (Municipal distribution system leased to Public Service Co. of Oklahoma.)

WETUMKA Light Dept., 202 N. Main, 74883, 405/452-3153, Carl Sanders, supt.; 800 met.; no gen.; pur. 4 million kWh; rev. $100,084.

WYNNEWOOD Water & Light Dept., 207 W. Kerr Blvd., Box 176, 73098, 405/665-4141; Ralph Nelms, mgr.; 1,237 met.; no gen.; pur. 12.5 million kWh; rev. $570,185.

YALE City of Elec. Co., 209 N. Main, 74085, 918/387-2121, Clarence Embry, city mgr.; 9,487 met.; no gen.; pur. 4.3 million kWh; rev. $366,759.

OREGON

ASHLAND, City of, 20 E. Main St., 97520, 503/482-3211, Brian L. Almquist, city admin.; 6,488 met.; no gen.; pur. 128,555,226 kWh; rev. $3,480,475. (1909)

BANDON, City of, Box 67, 97411, 503/347-2437, Ben M. McMakin, city mgr.; 2,288 met.; no gen.; pur. 52,259,340 kWh; rev. $1,540,506. (1921)*

CANBY Util. Bd., 154 N. W. 1st Ave., Box 470, 97013, 503/266-1156, Stephan A. Lashbrook, mgr.; 4,240 met.; no gen.; pur. 100,350,740 kWh; rev. $2,141,998. (1969)

CASCADE LOCKS, City of, Box 308, 97014, 503/374-8484, Ken Hobson, city admin.; 754 met.; no gen.; sales 22,002,267 kWh; rev. $509,675. (1939)*

CENTRAL LINCOLN PEOPLE'S UTILITY DISTRICT, 255 S. W. Coast Highway, Box 1126, Newport, 97365, 503/265-3211, Dan Westlind, gen. mgr.; 25,209 met.; no gen.; pur. 1,224,882,397 kWh; rev. $24,683,073. (1943)*

CLATSKANIE PEOPLE'S UTILITY DISTRICT, Box 216, Clatskanie, 97016, 503/728-2163, Liston Darby, gen. mgr.; 3,003 met.; no gen.; pur. 717,131,000 kWh; rev. $10,203,635. (1940)*

COLUMBIA RIVER PEOPLE'S UTILITY DISTRICT, Box 1193, St. Helens, 97051, 503/397-6568 or -3118, Steve Spinden, pres.; R. Tarbell, sec.-treas. (authorized by voters in 1981 to issue revenue bonds; not yet operating).

DRAIN, City of, Box 158, 97435, 503/836-2417, Robert A. Gray, city admr.; 620 met.; no gen.; pur. 25,917,000 kWh; rev. $527,739. (1940)

EMERALD PEOPLE'S UTILITY DISTRICT, 5001 Franklin Blvd., Eugene 97403, 503/746-1583, Lon Topaz, gen. mgr. (Began operation Nov. 17, 1983; territory formerly served by Pacific Power & Light Co.)*

EUGENE Water & Elec. Bd., 500 E. Fourth Ave., Box 10148, 97440, 503/484-2411, Keith Parks, gen. mgr.; 61,517 met.; gen. 162,700 kW; 474,206,800 kWh; pur. 1,865,988,906 kWh; rev. $55,288,965. (1911)*

FOREST GROVE, City of, Light & Power Dept., Box 326, 97116, 503/357-7151, Doug Sleeth, dir., light and power dept.; 5,957 met.; no gen.; pur. 161,836,875 kWh; rev. $2,524,735. (1896)*

McMINNVILLE Water & Light Dept., 130 N. Baker St., 97128, 503/472-6158, Alan H. Jones, gen. mgr.; 8,205 met.; no gen.; pur. 367,094,000 kWh; rev. $6,733,832. (1889)*

MILTON-FREEWATER City Light & Power, 722 S. Main, Box 6, 97862, 503/938-5533, George N. McRae, elec. supt.; 3,517 met.; no gen.; pur. 111,204,000 kWh; rev. $1,164,562. (1890)*

MONMOUTH, City of, 151 W. Main St., 97361, 503/838-3562, Lyle Ladehoff, elec. supt.; 2,459 met.; no gen.; pur. 54,471,000 kWh; rev. $1,111,928. (1940)*

NORTHERN WASCO COUNTY PEOPLE'S UTILITY DISTRICT, 121 E. 2nd St., The Dalles, Box 621, 97058, 503/296-2227, Harold Haake, mgr.; 8,731 met.; no gen.; pur. 215,683,889 kWh; rev. $6,165,809. (1939)*

SPRINGFIELD Util. Bd., 250 N. A. St., Box 300, 97477, 503/746-8451, Steve L. Loveland, gen. mgr.; 19,926 met.; no gen.; pur. 664,798,600 kWh; rev. $16,914,065. (1950)*

TILLAMOOK PEOPLE'S UTILITY DISTRICT, Box 433, Tillamook, 97141, 503/842-2535, Jack H. Madison, mgr.; 14,578 met.; no gen.; pur. 349,556,000 kWh; rev. $9,460,076. (1932)*

PENNSYLVANIA

BERLIN Mun. Elec. Sys., 700 North St., 15530, Kerry B. Claycomb, exec. bor. secy.; 903 met.; no gen.; pur 13,521,600 kWh; rev. $774,075.

BLAKELY Borough Mun. Light Plant, 800 Main St., Peckville, Pa., 18452, Harold J. McCusker Jr.; 2,945 met.; no gen.; pur. 30.8 million kWh; rev. $1,418,050. (1895)

CATAWISSA Bor. Light, 118 N. 3rd St., Box 44, 17820, 717/356-2561, C. L. Linn; 760 met.; no gen.; pur. 10,200,000 kWh; rev. $424,000. (1928)

CHAMBERSBURG, Bor. of, Elec. Dept., 100 S. Second St., 17201, 717/264-5151, Julio D. Lecuona, bor. mgr.; 9,188 met.; gen. 4,200 kW dual-fuel, 243,000 kWh; pur. 176,499,500 kWh; rev. $6,812,014. (1893)*

DUNCANNON Borough, 428 High St., Box 9, 17020, 717/834-4311, Thomas Evans, borough mgr.; 834 met.; no gen.; pur. 7,191,000 kWh; rev. $307,243. (1898)

EAST CONEMAUGH Mun. Elec. Dept., 355 First St., Borough Bldg., 15909, 814/535-1977, John Salem, meter reader, 808 met.; no gen.; pur. 5,116,000 kWh; rev. $289,443.

ELLWOOD CITY Mun. Elec. Dept., 525 Lawrence Ave., 16117, 412/758-5576, Robert McClelland, supt.; 4,281 met.; no gen.; pur 48,376,000 kWh; rev. $1,446,640. (1901)

EPHRATA, Bor. of, Power & Light, 114 E. Main St., 17522, 717/733-1277, L. Victor Dickinson, bor. mgr.; 4,995 met.; no gen.; pur. 84 million kWh; rev. $3,651,000. (1902)*

GIRARD Bor. Elec., 34 Main St. West, Box 146, 16417, 814/774-3012, Martin Rafferty, bor. mgr.; 1,200 met.; no gen.; pur. 18 million kWh; rev. $1.5 million. (1900)

GOLDSBORO E.L.H.&P. Util., Etters, Box 52, 17319, 717/938-3456, George Hartman, util. supv.; 206 met.; no gen.; pur. 1,722,000 kWh; rev. $68,880. (1913)

GROVE CITY Borough Elec., 315 Park Street, 16127, 412/458-7070, John T. Bouck, supt.; 2,764 met.; no gen.; pur. 36,825,600 kWh; rev. $2,720,585. (1908)*

HATFIELD Mun. Sys., Broad and Cherry Sts., Box 190, 19440, 215/855-0781, Leonard T. Perrone, bor. mgr.; 1,200 met.; pur. 13,455,000 kWh; rev. $850,000. (1930)

HOOVERSVILLE Borough, Box 176, 15936, 814/798-8001, Eileen P. Granoas, borough sec.; 387 met.; no gen.; pur. 2,753,600 kWh; rev. $172,318.

KUTZTOWN, Borough of, 211-213 W. Main St., 19530-1697, 215/683-6131, Carl H. Bortz, borough sec.; 1,841 met.; no gen.; sales 35,773,141 kWh; rev. $2,451,908.*

LANSDALE, Borough of, Elec. Dept., 421 W. Main St., 19446 215/368-1691, Edward W. Olander, supt.; 7,418 met.; no gen.; pur. 106,760,000 kWh; rev. $7,827,028. (1902)*

LEHIGHTON Borough Light & Power, Municipal Bldg., 18235, 215/377-4002, Mortimer L. Smedley, Jr., mgr.; 2,928 met.; no gen.; pur. 35,542,000 kWh; rev. $2,058,445 (1940)

LEWISBERRY, Borough of, 17339, William Keener, borough sec.; 125 met.; no gen.; pur. 1 million kWh; rev. $34,000.

MIDDLETOWN Borough, 60 West Emaus St., 17057, 717/944-4686, Richard Shaffer, supt.; 3,688 met.; no gen.; pur. 67,039,600 kWh; rev. $1,542,567. (1906)*

MIFFLINBURG Light Dept., 333 Chestnut St., 17844, 717/966-1013, Walter Katherman, bor. mgr.; 1,561 met.; no gen.; pur. 33,576,000 kWh; rev. $1,328,089. (1925)

MONT ALTO Mun. Elec. Dept., 17237, Robert T. Shank, borough sec.; 481 met.; no gen.; pur. 2 million kWh; rev. $157,479.

NEW WILMINGTON, Borough of, 140 W. Neshannock Ave., 16142, 412/946-8167, Edward Garrett, borough supt.; 706 met.; no gen.; pur. 11,392,000 kWh; rev. $616,790.

OLYPHANT Borough Elec. Plant, Willow Ave., 18447, 717/489-3211, John Cecere, plant frmn.; 1,590 met.; no gen.; pur. 23,596,200 kWh; rev. $1,078,884

PERKASIE Elec. Dept., 120 N. 7th St., Box 275, 18944, 215/257-5065, Gary A. Nuce, bor. mgr.; 2,713 met.; no gen.; pur. 34,328,000 kWh; rev. $2,127,311. (1900)*

PITCAIRN Mun. Elec. Light Plant, 320 Center Ave., 15140, 412/372-3116, George H. Myers, mgr.; 1,910 met.; no gen.; pur. 9,000,000 kWh; rev. $543,842. (1901)*

QUAKERTOWN, Bor. of, Electric, 15-35 N. 2nd St., Box 727, 18951, 215/536-5001, Nicolas Luca, bor. mgr.; 3,915 met.; no gen.; pur. 81,735,000 kWh; rev. $3,719,751. (1904)

ROYALTON, Bor. of, Elec. Light Dept., Burd and Dock Sts., Middletown, 17057, 717/944-4831, Gary Nagle, elec. comm. chmn.; 350 met.; no gen.; pur. 2,144,400 kWh; rev. $152,778. (1930)

ST. CLAIR Borough Elec. Light Dept., 39 N. Second St., 17970, 717/429-0640, Donald C. Hosler, gen. supt., 2,070 met.; no gen.; sales 11,138,000 kWh; rev. $609,996. (1920)

SCHUYLKILL HAVEN, Borough of, 39 Dock St., 17972, 717/385-2841, R. L. Waller, borough mgr.; 2,740 met.; no gen.; pur. 41,014,100 kWh; rev. $2,073,598.

SMETHPORT, Bor. of, Elec. Dept., 412 Water St., 16749, 814/887-5815, William H. Covert, Jr., elec. supt.; 981 met.; no gen.; pur. 9,862,800 kWh; rev. $586,885.

SUMMERHILL Borough Mun. Light Plant, Box 289, 15958, 814/495-5610, Janet S. Thomas, sec./treas.; 300 met.; no gen.; pur. 2,373,600 kWh; rev. $102,368. (est. 1933).

WAMPUM Borough Elec. Dept., Box 65, 16157, 412/535-8241, Charles Kelly, maint. supt.; 400 met.; no gen.; pur. 3,275,900 kWh; rev. $150,000. (1910)

WATSONTOWN Borough Elec. Dept., Fourth and Main Sts., Box 273, 17777, 717/538-1000, Robert Barr, supt.; 1,050 met.; no gen.; pur. 12,992,900 kWh; rev. $642,500.

WEATHERLY Borough Elec. Dept., 10 Wilbur St., 18255, 717/427-8640, Beverly E. Knepper, borough mgr.; 1,106 met.; no gen.; pur. 22,552,000 kWh; rev. $918,440.*

ZELIENOPLE Mun. Elec. Dept., 111 W. New Castle St., 16063, 412/452-7260, Charles M. Mick, supt.; 1,607 met.; no gen.; pur. 19.9 million kWh; rev. $1,050,860.

RHODE ISLAND

PASCOAG FIRE DISTRICT, 33 S. Main St., Pascoag, 02859, 401/568-6222, Howard C. Peters, gen. mgr.; 3,010 met.; no gen.; sales 20,431,484 kWh; pur. 23,596 kWh; rev. $1,735,784. (1887)

SOUTH CAROLINA

ABBEVILLE Water & Elec. Plant, Box 639, 29620, 803/459-5058, Mike Moorhead, mgr.; 3,000 met.; gen. 4,650 kW, 3,250 kW hydro, 1,400 kW eng., 11 million kWh; pur. 32 million kWh; rev. $1,500,000. (1905)*

BAMBERG Bd. of Pub. Works, Box 300, 29003, 803/245-5128, James B. Roberts, supt.; 1,547 met.; no gen.; sales 36,201,818, kWh; rev. $1,460.105. (1905)

BENNETTSVILLE Elec., Water & Gas, Box 1036, John Corry Rd., 29512, 803/479-7192, Jimmy L. McColl, supt.; 4,483 met.; no gen.; pur. 76,921,000 kWh; rev. $3,562,651. (1903)

CAMDEN, City of, 1000 Lyttleton St., 29020, 803/432-2421, B. M. Paulling, city mgr., 8,331 met.; no gen.; sales 117,881,785 kWh; rev. $6,540,346. (1947)*

CLINTON, City of, 219 Gary St., Drawer 748, 29325, 803/833-1350, J. Russell Allen, city mgr.; 3,350 met.; no gen.; pur. 81,771,064 kWh; rev. $3,919,735. (1907)

DUE WEST, Town of, Box 278, 29639, 803/379-2385, C. H. Hawthorne, supt.; 367 met.; no gen.; pur. 8,781,600 kWh; rev. $405,572. (prior to 1948)

EASLEY Combined Util. System, Box 605, 29640, 803/859-4013, Richard S. Hale, mgr.; 7,889 met.; no gen.; pur. 141,638,560 kWh; rev. $6,934,922. (1910)*

GAFFNEY Bd. of Pub. Works, 210 E. Frederick St., Box 64, 29340, 803/487-7171, Houston F. Crater Jr., mgr.; 6,247 met.; no gen.; pur. 123,056,815 kWh; rev. $6,986,239. (1907)*

GEORGETOWN Light & Water Dept., Box 1146, 29440, 803/546-5632, W. L. Hewitt, util., mgr.; 4,034 met.; no gen.; pur. 93,555,506 kWh; rev. $3,789,960.

GREENWOOD Comm. of Pub. Works, Box 549, 29648, 803/223-8571, Wilson C. Henderson, chmn.; 10,414 met.; no gen.; pur. 178,102,839 kWh; rev. $7,373,771. (1896)*

GREER Comm. of Pub. Works, 201 W. Poinsett St., Box 216, 29652, 803/877-0171, Kenneth Smith, mgr.; 8,012 met.; no gen.; pur. 120,287,346 kWh; rev. $5,296,270. (1914)*

LAURENS Comm. of Pub. Works, Box 349, 29360, 803/984-2576, Sam

R. Wallace, mgr.; 4,876 met.; no gen.; pur. 76.4 million kWh; rev. $2,925,340. (1922)*

McCORMICK Comm. of Pub. Works, 704 Calhoun St., Box 656, 29835, 803/465-2224, J. Eakin Cochran, supt.; 886 met.; no gen.; pur. 14,793,600 kWh; rev. $734,417. (1926)*

NEWBERRY, City of, Drawer 538, 29108, 803/276-0471, Steve D. Reeves Jr., utils. dir.; 4,412 met.; no gen.; pur. 108,531,360 kWh; rev. $4,319,679. (1923)*

ORANGEBURG Dept. of Pub. Utils., 195 Russell S.W., Box 1057, 29115, 803/523-2821, Ted M. Johnson Jr., mgr.; 20,245 met.; no gen.; pur. 484,512,000 kWh; rev. $21,925,817. (1898)*

PROSPERITY, Town of, McNeary St., Box 36, 29127, 803/364-2616, J. Walter Hamm, mayor; 398 met.; no gen. (1920)

ROCK HILL, City of, Box 11706, 29730, 803/328-6171, C. A. Owen, utils. dir.; 15,898 met.; no gen.; pur. 338,137,924 kWh; rev. $16,264,602. (1910)*

SENECA Light & Water Plant, Box 4773, 29678, 803/882-8359, H. Jerry Balding, dir. of utils.; 4,512 met.; no gen.; pur. 84.1 million kWh; rev. $4,196,074. (1907)*

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY (Santee Cooper), One Riverwood Drive, Box 398, Moncks Corner, 29461, 803/899-2121, William C. Mescher, pres.; 56,663 met.; gen. 1,965,000 kW, 92,000 kW oil, 1,556,000 kW coal (steam turbine), 187,000 kW oil (eng.), 130,000 kW hydro; 9,032 billion kWh; pur. 555,693,480 kWh; rev. $307,755,000. (1934)*

UNION, City of, Drawer K, 29379, 803/427-6282, T. D. Sherbert Jr., dir. of utils.; 6,474 met.; no gen.; pur. 95,882,400 kWh; rev. $4,190,561.(1897)*

WESTMINSTER Comm. of Pub. Works, Box 216, 29693, 803/647-5071 or 803/647-2026, Sam Stribling, supt.; 1,875 met.; no gen.; pur. 772,717 kWh; rev. $918,854. (1875)

WINNSBORO, Town of, Box 209, 29180, 803/635-4041, Walter E. Taylor, supt.; 2,514 met.; no gen.; pur. 42,472,800 kWh; rev. $2,084,870. (1910)

SOUTH DAKOTA

ARLINGTON Mun. Light Plant, 57212, Wayne Reit, supt.; 496 met.; gen. 800 kW eng.; pur. 8,640,700 kWh; rev. $265,670.

AURORA Mun. Elec., 57002, 605/693-3752, Elaine Waples, fin. off.; 231 met.; no gen.; pur. 3,279,087 kWh; rev. $128,490. (1968)

BADGER Elec. Light Dept., Box 84, 57214, 605/983-5385, Myron Anderson pres.; 75 met.; no gen.; pur. 1,200,000 kWh. (1956)

BERESFORD, City of, 101 N. Third St., 57004, 605/763-2008, Terry L. Peters, supt.; 928 met.; no gen.; pur. 13,416,000 kWh; rev. $474,529. (1950)*

BIG STONE CITY Mun. Elec. Dept., 57216, Box 246, 605/862-8121, Mary Jane Lempka, town clerk; pur. 12,127,392 kWh; rev. $324,553.*

BROOKINGS Mun. Utils. 525 Western Ave., Box 588, 57006, 605/692-6325, Craig Osoog, gen. mgr.; 5,892 met.; pur. 131,192,228 kWh; rev. $3,798,670. (1899)*

BRYANT City Power & Light, 57221, 605/625-5221, Garry Ludwig, supt.; 212 met.; gen. 200 kW eng.; pur. 3.1 million kWh; rev. $86,103. (1958)

BURKE Maintenance Office, Box 312, 57523, 605/775-2692, Richard N. Bailey, supt. of utils.; 423 met.; no gen.; pur. 6,169,900 kWh; rev. $171,144. (1936)*

COLMAN, City of, Box 54, 57017, 605/534-3611, Donald Hilmoe, mayor; 250 met.; no gen.; pur. 6,000,000 kWh; rev. $210,427. (1965)

ELK POINT, City of, Box 280, 57025, 605/356-2631, Robert L. Eslick, supt.; 700 met.; no gen.; sales 9,099,710 kWh; rev. $444,000. (1918)

ESTELLINE, City of, Box 278, 57234, 605/873-2388, Donald A. Seeklander, city engr.; 318 met.; no gen.; pur. 4,500,000 kWh; rev. $215,605.

FAITH Mun. Elec. Co., Box 368, 57626, 605/967-2261, Donn Dupper, supt.; 240 met.; no gen.; rev. $86,546.*

FLANDREAU, City of, 136 Second Ave., E., 57028, 605/997-2671, Don Johnson, supt.; 1,288 met.; no gen.; pur. 15,851,000 kWh; rev. $477,332.*

FORT PIERRE Mun. Elec., Box 637, 57532, 605/223-2508, James Klemann, city supt.; 725 met.; no gen.; pur. 13,500,000 kWh; rev. $385,000. (1900)*

GROTON, City of, Light Dept., Box 121, 57445, 605/397-2690, David Anderson, supt.; 532 met.; no gen.; pur. 9,196,128 kWh. (1921)

HECLA Light & Power Plant, 57446, 605/994-2080, Delwyn Tisher, supt.; 250 met.; gen. 200 kW eng.; pur. 3,742,467 kWh; rev. $109,237.

HOWARD, City of, Box 157, 57349, 605/772-4391, Ed Lutz, supt., 621 met.; no gen.; pur. 90,028 kWh; rev. $217,734.

LANGFORD, Town of, Box 191, 57454, 605/493-6772, Milton Hardy, pres. bd. of trustees; 180 met.; no gen.; pur. 2.6 million kWh; rev. $78,242. (1935)

MADISON Mun. Elec. Util., 116 W. Center St., Box 308, 57042, 605/256-4586, Virgil Schoeberl, supt.; 2,672 met.; pur. 49.6 million kWh; rev. $1,357,736. (1922)*

McLAUGHLIN Mun. Power System, 57642, 605/823-4428, Edward Walker, mayor; 385 met.; no gen.; pur. 6,372,923 kWh; rev. $164,786. (1969)

MILLER, City of, 120 W. Second St., 57362, 605/853-2705, Merle Dirksen, supt.; 1,014 met.; no gen.; pur. 24,049,961 kWh; rev. $514,220. (1904)

ONIDA, City of, Mun. Light & Water Works, Box 72, 57564, 605/258-2231, Jerry Culey, supt.; 400 met.; gen. 550 kW oil (eng.); pur. 6,000,000 kWh; rev $291,551. (1926)

PARKER, City of, Box 265, 57053, Frisco D. Petersen, fin. officer; 547 met.; gen. 1005 kW eng.; rev. $158,527.*

PIERRE Mun. Elec., 222 E. Dakota, 57501, 605/224-7341, Dave Padgett, dir. pub. wks.; 5,388 met.; no gen.; pur. 122,134,855 kWh; rev. $3,383,496. (about 1900)*

PLANKINTON Light & Power Plant, 57368, 605/942-5361, Edwin Lutz, light supt.; 367 met.; no gen.; pur. 6,938,668 kWh; rev. $175,477. (1936)

SIOUX FALLS Mun. Light and Power Dept., 2000 N. Minnesota Ave., 57104, 605/339-7006, Frank W. Josten, light dept. mgr.; 1,570 met.; no gen.; pur. 54,531,800 kWh; rev. $1,657,476. (1905)

TYNDALL Light & Water Plant, Box 29, 57066, 605/589-3481, Alfred J. Novotny, supt.; 620 met.; no gen.; pur. 10,171,779 kWh; rev. $362,615. (1911)

VERMILLION, City of, 25 Center St., 57069, 605/624-2668, Lawrence Burrell, supt.; 3,374 met.; gen. 2,455 kWh; pur. 36,651,028 kWh; rev. $1,467,838. (1915)*

VOLGA Mun. Light & Power, 108 Kasson Ave., 57071, 605/627-2341, Donald Brintnall, supt.; 600 met.; gen. 550 kW eng.; pur. 10,354,862 kWh; rev. $372,168. (1941)

WATERTOWN Mun. Utils., 901 Fourth Ave., S.W., 57201, 605/866-5733, J. R. Harty, supt.; 7,701 met.; no gen.; pur. 138,581,443 kWh; rev. $4,540,911. (1923)*

WESSINGTON SPRINGS Mun. Light & Power, 57382, 605/539-1691, Lawrence Myers, supt.; 560 met.; no gen.; pur. 7.8 million kWh; rev. $280,000. (1914)

WHITE, City of, 57276, 605/629-3521, Orvin Anderson, supt.; 218 met.; no gen.; pur. 3,152,417 kWh; rev. $191,036. (1978)

WINNER Mun. Utils., 217 E. Third St., 57580, Clair Turgeon, supt.; 1,850 met.; no gen.; pur. 29,636,616 kWh; rev. $753,884. (1948)*

(Oglala Sioux Tribal Council, Pine Ridge, S.D., and Oglala Sioux Housing Authority, Pine Ridge, S.D., own electric systems which are operated under lease agreements by Nebraska Public Power District, Columbus, Neb.)

TENNESSEE

(All local publicly owned electric utilities in Tennessee are distributors of Tennessee Valley Authority power and purchase all of their power requirements from TVA.)

ALCOA Utils Bd. (formerly Blount Elec. Sys.,) 264 Rankin Rd., Box 610, 37701, 615/982-4190, David W. Switzer, mgr.; 14,793 met.; no gen.; sales 320,431,823 kWh; rev. $12,598,757. (1956)*

ATHENS Utils. Bd., 100 New Englewood Rd., Box 689, 37303, 615/745-4501, George H. Usry, gen. mgr.; 11,241 met.; pur. 381,942,145 kWh; rev. $16,345,839. (1939)*

BENTON COUNTY BD. OF PUBLIC UTILITIES, 115 S. Church St., Camden, Box 445, 38320, 901/584-8251, Glenn C.

Pafford, mgr.; 9,895 met.; pur. 170.4 million kWh; rev. $4,829,111. (1940)

BOLIVAR Elec. Dept., Box 188, 38008, 901/658-5257, Beryl F. Williams, mgr.; 8,500 met.; pur. 183,522,882 kWh; rev. $8,047,941. (1936)*

BRISTOL Elec. System, Box 549, 37621, 615/968-1526, R. Michael Browder, gen. mgr.; 24,011 met.; pur. 626,687,000 kWh; rev. $26,960,233. (1945)*

BROWNSVILLE Util. Dept., Box 424, 38012, 901/772-1213, John F. Sharpe, mgr.; 3,938 met.; sales 103,434,601 kWh; rev. $4,034,895. (1939)*

CARROLL COUNTY Elec. Dept., 103 W. Paris St., Box 527, Huntingdon, 38344, 901/986-8284, J. B. McMillin, mgr.; 12,866 met.; pur. 278,338,997 kWh; rev. $13,047,239. (1938)

CHATTANOOGA Elec. Power Bd., 6th & Market Sts., 37402, 615/629-3300, Kenneth S. Baxter, gen. mgr.; 125,686 met.; pur. 4,810,031,593 kWh; rev. $213,733,804. (1935)*

CLARKSVILLE Dept. of Elec., 200-202 S. Second St., Box 1007, 37040, 615/648-8151, Dalton B. Smith, gen. mgr.; 20,356 met.; sales 495,718,913 kWh; rev. $21,537,116. (1939)

CLEVELAND Utils., 2450 Guthrie Drive, N.W., Box 2730, 37311, 615/472-4521, M. E. Beavers, gen. mgr.; 18,821 met.; pur. 605,440,121 kWh; rev. $26,246,524. (1939)*

CLINTON Utils. Bd., 1001 Moore St., Box 296, 37716, 615/457-9232, E. H. Ross, mgr.; 20,320 met.; pur. 463,651,971 kWh; rev. $20,944,078. (1939)

COLUMBIA Power System, Box 379, 38401, 615/388-4833, William M. Carroll III, mgr.; 15,220 met.; pur. 413,345,131 kWh; rev. $17,348,272. (1939)

COOKEVILLE Elec. Dept., 45 E. Broad, Box 998, 38503, 615/526-9591, W. R. Holland, supt.; 9,080 met.; pur. 313,784,682 kWh; rev. $13,682,000. (1904)*

COVINGTON Elec. System, Box 488, 38019, 901/476-7104, Leo Wingate Jr., mgr.; 2,977 met.; pur. 105,269,678 kWh; rev. $4,842,152. (1904)*

DAYTON Electric, Box 226, 37321, 615/775-1818, Paul Hill, supt.; 6,102 met.; pur. 133 million kWh; rev. $6,209,422. (1927)

DICKSON Elec. Dept., 121 S. Main St., Box 627, 37055, 615/446-9051, Ernest R. Brown, mgr.; 16,366 met.; pur. 348.8 million kWh; rev. $9,253,131. (1936)

DYERSBURG Elec. System, 211 E. Court, Box 664, 38025, 901/285-2941, J. P. Crawford, mgr.; 9,642 met.; pur. 299,363,036 kWh; rev. $12,700,895. (1902)*

ELIZABETHTON Elec. System, Box 790, 37643, 615/542-2101, Frank L. Curde, mgr.; 18,264 met.; pur. 401,141,559 kWh; rev. $17,237,038. (1945)*

ERWIN Utils., 244 Love Street, Box 201, 37650, 615/743-6191, Howard C. Brown, mgr.; 6,693 met.; pur. 153,745,200 kWh; rev. $6,562,396. (1945)

ETOWAH Utils. Dept., Drawer N, 37331-0614, 615/263-9441, Paul R. Sitzlar, mgr.; 3,780 met.; pur. 112,433,127 kWh; rev. $4,790,188. (1937)*

FAYETTEVILLE Elec. System, Drawer E., 408 W. College St., 37334, 615/433-1522, Walter J. Szelich Jr., mgr.; 12,513 met.; no gen.; pur. 264,109,545 kWh; rev. $11,959,123. (1937)*

GALLATIN, Elec. Dept., Box 167, 37066, 615/452-5152, William N. Parker, mgr.; 7,212 met.; sales 291,608,442 kWh; rev. $13,322,580. (1939)*

GREENEVILLE Light & Power System, Box 420, 37743, 615/639-8121, Robert C. Lay, mgr.; 23,740 met.; pur. 652,528,362 kWh; rev. $28,947,561. (1945)*

HARRIMAN Util. Bd., 300 Roane St., Box 434, 37748, 615/882-3242, Jack Howard, mgr.; 9,043 met.; pur. 314.9 million kWh; rev. $7,064,000. (1939)

HUMBOLDT Utils., 207 S. Thirteenth Ave., 38343, 901/784-9212, Stan Little, mgr.; 4,277 met.; no gen.; pur. 166,307,459 kWh; rev. $7,030,427. (1939)*

JACKSON Util. Div., 119 E. College, Box 68, 38301, 901/422-7500, Joe H. Exum, gen. mgr.; 23,017 met.; no gen.; pur. 882,551,242 kWh; rev. $36,358,564. (1937)*

JELLICO Elec. System, Box 510, 400 S. Main St., 37762, 615/784-8431, John W. Leach Jr., mgr.; 4,077 met.; sales 67,261,000 kWh; rev. $2,588,276. (1935)

JOHNSON CITY Power Bd., 100 N. Roan St., Box 1636, 37601, 615/928-2112, Roy L. Taylor, mgr.; 43,958 met.; no gen.; pur. 1,157,455,710 kWh; rev. $48,174,061. (TVA) (1945)*

KNOXVILLE Utils. Bd., Box 1951, 37901, 615/524-2911, E. C. Hoskins, gen. mgr.; 1,573,952 met.; pur. 3,966,617 kWh; rev. $180,387,443. (TVA) (1938)*

LA FOLLETTE, City of, Elec. Dept., 301 N. Tennessee Ave., Box 1411, 37766, 615/562-3316, Leonard E. Watson, gen. mgr.; 13,966 met.; pur. 256.5 million kWh; rev. $7,040,197. (1939)*

LAWRENCEBURG Power System, 1607 N. Locust Ave., Box 649, 38464, 615/762-7161, James W. Collins, supt.; 13,995 met.; pur. 328.3 million kWh; rev. $14,090,711. (1939)

LEBANON City Pub. Wks. Dept., 410 Park Dr., 37087, 615/444-0825, Jessie Coe, mgr.; 5,362 met.; pur. 231.5 million kWh; rev. $5,875,296. (1942)

LENOIR CITY Utils. Bd., 200 Depot St., Box 449, 37771, 615/986-6591, Kenneth Dutton, mgr.; 25,542 met.; pur. 636,469,752 kWh; rev. $27,647,341. (1938)

LEWISBURG Elec. System, 599 N. 50A Bypass, Box 90, 37091, 615/359-2544, Richard Turner, gen. mgr.; 4,098 met.; no gen.; pur. 150 million kWh; rev. $6,743,000. (1938)*

LEXINGTON Elec. System, 92 Main St., Box 30, 38351, 901/968-3662, Travis Lewis, mgr.; 15,055 met.; pur. 550 million kWh; rev. $22,875,136. (1939)*

LOUDON Utils., Drawer E, Alma Place, 37774, 615/458-2091, Randy McGill, mgr.; 4,717 met.; pur. 138.4 million kWh; rev. $5,790,099. (1935)*

MARYVILLE Utils. Bd., 400 W. Broadway, Box 667, 37801, 615/984-7900, Tomie Burchfield, mgr.; 13,568 met.; pur. 306.4 million kWh; rev. $13,291,543. (1939)

McMINNVILLE Elec. System, 200 Morford St., Box 608, 37110, 615/473-3144, Donald R. Collette, gen. mgr.; 5,769 met.; pur. 181,424,252 kWh; rev. $7,907,489. (TVA) (1939)*

MEMPHIS Light, Gas & Water Div., 220 So. Main, Box 430, 38101, 901/528-4221, David F. Hansen, pres.; 309,720 met.; no gen.; pur. 9,159,419,790 kWh; rev. $410,352,953. (1939)*

MILAN Dept. of Pub. Util., 407 S. Second Street, Box 109, 38358, 901/686-1537, Harold L. Crenshaw, supt.; 6,473 met.; no gen.; pur. 170,363,894 kWh; rev. $7,697,509. (1897)*

MORRISTOWN Power Sys., 441 W. Main St., Box 667, 37814, 615/586-4121, James E. Akins, mgr.; 9,885 met.; pur. 372,622,926 kWh; rev. $16,337,740. (1901)*

MOUNT PLEASANT Power System, Box 186, 38474, 615/379-3233, Dan Gibson Jr., mgr.; 3,009 met.; pur. 73,419,872 kWh; rev. $3,149,575. (1935)

MURFREESBORO Elec. Dept. 225 N. Walnut St., Box 9, 37133-0009, 615/893-5514, Larry D. Kirk, gen. mgr.; 15,370 met.; pur. 562,875,290 kWh; rev. $23,607,407. (1939)*

NASHVILLE Elec. Service, 1214 Church St., 37246, 615/747-3831, Paul P. Hembree, gen. mgr.; 226,461 met.; pur. 7,845,367,262 kWh; rev. $329,027,009. (1939)*

NEWBERN Elec. Sys., Box J, 38059, 901/627-3221, Donald R. Campbell, dir. pub. works; 1,373 met.; pur. 32,352,742 kWh; rev. $1,529,204. (1938)*

NEWPORT Utils. Bd., Box 519, 37821, 615/623-3074, Lindsay Boyd, gen. mgr.; 13,696 met.; pur. 311,514,859 kWh; rev. $13,287,161. (TVA) (1939)*

OAK RIDGE, City of, Box 1, 37830, 615/483-5671, Phillip M. Marcum, supt.; 12,715 met.; pur. 329,965,673 kWh; rev. $13,887,098. (1960)

PARIS Bd. of Pub. Utils., Box 460, 38242, 901/642-1549, Charles R. Perry, supt.; 14,884 met.; pur. 377,089,019 kWh; rev. $15,732,335. (1938)*

PULASKI Elec. System, Box 368, 38478, 615/363-2522, James A. Hanna, supt.; 10,360 met.; pur. 296,610,032 kWh; rev. $11,151,364. (1890)

RIPLEY Power & Light Co., Box 69, 38063, 901/635-2323, Mike Allmand, mgr.; 6,148 met.; pur. 177,319,544 kWh; rev. $7,539,914. (1939)*

ROCKWOOD Elec. Util., Box 108, 37854, 615/354-0514, Charles W. Johnson, gen. mgr.; 9,664 met.; pur. 205,827,000 kWh; rev. $9,286,235. (1939)*

SEVIER COUNTY Elec. System, 114 Church St., Box 310, Sevierville, 37862, 615/453-2887, Jack J. Delozier, supt.; 19,411 met.; pur. 503,978,549 kWh; rev. $22,690,249. (1939)*

SHELBYVILLE Power System, 308 S. Main St., Box 530, 37160,

615/684-7171, Eugene Crowell, mgr.; 6,405 met.; sales 220,132,544 kWh; rev. $8,487,507. (1939)

SMITHVILLE Elec. System, Box 228, 37166, 615/597-4735, Mark Ashburn, mgr.; 2,066 met.; pur. 56.1 million kWh; rev. $2,505,278. (1969)

SOMERVILLE Light, Gas & Water, 106 E. Court Square, 38068, 901/465-3676, Kennie German, mgr.; 1,144 met.; pur. 28.4 million kWh; rev. $799,7 2. (1936)

SPARTA Elect. Sys., Box 468, 38583, 615/738-2281, Paul R. Page, mgr.; 2,390 met.; pur. 72,371,000 kWh; rev. $3,249,303. (1962)

SPRINGFIELD Dept. of Elec., 123 Fifth Ave., W., Box C, 37172, 615/384-3561, W. Royce Williams, supt.; 4,516 met.; pur. 138,342,975 kWh; rev. $6,108,456. (1905)*

SWEETWATER Bd. of Pub. Utils., Box 191, 37874, 615/337-6890, Lewis Wayne Roach, gen. mgr.; 5,395 met.; pur. 131,093,200 kWh; rev. $6,057,191. (1939)*

TRENTON, City of, Elec. Dept., 309 College St., 38382, 901/855-1561, Paul Bennett, mgr.; 2,384 met.; pur. 77,719,200 kWh; rev. $3,306,465. (1938)*

TULLAHOMA Util. Bd., 901 S. Jackson, Box 788, 37388, 615/455-4515, Bob G. Burton, gen. mgr.; 7,524 met.; pur. 208 million kWh; rev. $8,860,000. (1947)*

UNION CITY Elec. System, 312 N. Division St., Box 5, 38261, 901/885-9212, Stanley R. McMinn, mgr.; 5,205 met.; pur. 266,071,820 kWh; rev. $11,307,912. (1952)*

WEAKLEY COUNTY Mun. Elec. System, 501 Lindell St., Martin, 38237, 901/587-9521, Gerald Brooks, supt.; 16,300 met.; pur. 351,358,510 kWh; rev. $15,972,494. (1938)*

WINCHESTER Power System, 219 Second Ave., N.W., 37398, 615/967-2238, Lynn Bean, mgr.; 3,454 met.; pur. 82,335,512 kWh; rev. $3,858,968. (1935)

TEXAS

AUSTIN, City of, Elec. Util., Box 1088, 78767, 512/397-1600, Edward A. Aghjayan, dir.; 182,726 met.; gen. 550,000 kW coal, 1,400,000 kW oil, 6,051,623,000 kWh; sales 5,304,867,290 kWh; rev. $326,340,890. (1895)*

BARTLETT, City of, 140 W. Clark 76511, 817/527-3557, Mike Williams util. supt.; 650 met.; no gen.; pur. 6,384,000 kWh. (1920)

BASTROP Elec. Dept., 904 Main St., Box S, 78602, 512/321-3941, Ben Wesson, dir. of elec. serv.; 1,743 met.

BELLVILLE, City of, Elec., Drawer 817, 77418, 409/865-3136, John Mumme, city adm.; 1,922 met.; no gen.; pur. 37,219,866 kWh; rev. $2,041,680. (1940)

BOERNE, City of, Utils., Drawer U, 78006, 512/249-3970, Edgar Schwarz Jr., city admr.; 1,950 met.; no gen.; pur. 29,000,000 kWh. (1941)

BOWIE City of, 304 Lindsey, 76230, 817/872-1114, Ronnie Parkinson, elec. supt.; 2,887 met.; no gen.; rev. $3,098,631.

BRADY, City of, Power Plant, 212 W. Commerce, 76825, 915/597-2152, Dennis Jones, city supt.; 3,583 met.; gen. 2,500 kW oil-fired, 13,850 kW dual-fuel, 5,688,000 kWh; sales 48,540,000 kWh; rev. $11,432,780. (1912)

BRAZOS RIVER AUTHORITY, Box 7555, Waco, 76710, 817/776-1441, Carson Hoge, gen. mgr.; gen. 22,500 kW hydro, 48,729,000 kWh; rev. $311,950. (1929)

BRENHAM, City of, Mun. Light & Power System, 210 N. Park St., Box 361, 77833, 713/836-7911, Leslie D. Clayton, mayor; 5,698 met.; no gen.; sales 142,418,765 kWh; rev. $6,060,989. (1941)

BRIDGEPORT Light & Power System, 812 Halsell, 76030, Doug Whitehead, asst. city adm.; 1,800 met.; no gen.; pur. 260 million kWh; rev. $1.7 million. (1926)

BROWNFIELD Mun. Power Plant, 218 W. Main St., 79316, 806/637-4547, R. C. Fletcher, city mgr.; 4,543 met.; gen. 6,500 kW gas (combus. turbine), 16,420 kW gas (eng.), 8,832,500 kWh; pur. 53,904,000 kWh.; rev. $2,990,789. (1923)

BROWNSVILLE Pub. Util. Bd., Box 3270, 78520, 512/542-6285, Bill Towers, gen. mgr.; 25,324 met.; gen 98,000 kW, 45,000 kW steam, 53,000 kW gas turbine, 114,229,650 kWh; sales 568,641,000 kWh; rev. $32,984,462. (1904)*

BRYAN, Utils., Box 1000, 77801, 409/779-5622, Gailord White, dir., elec. utils.; 19,864 met.; gen. 247,500 kW, 225,500 kW steam turbine (gas), 22,000 gas turbine, 473,598,970 kWh; pur. 210,315,000 kWh; rev. $35,889,717. (1919)*

BURNET Utils., 127 E. Jackson St., 78611, 512/756-4501, Kenneth Taylor, city mgr.; 1,280 met.; no gen.; pur. 10.3 million kWh; rev. $172,291.

CALDWELL Mun. Light Dept., 214 W. Buck St., 77836, 713/567-3271, Willis Gilliam, supt.; 1,648 met.; no gen.; pur. 31.0 million kWh; rev. $1,318,916.

CASTROVILLE Util. Sys., Box 479, 78009, 512/538-2224, James W. McAnelly, util. mgr.; 746 met.; no gen.; pur. 10,486,740 kWh; rev. $680,564. (1948)

COLEMAN Mun. Light & Power, Box 592, 76834, 915/625-2939, Elmer Rodgers, supt.; 2,800 met.; gen. 12,500 kW, 2,250 kW gas-fired eng., 10,250 kW dual-fuel eng., 16,682,000 kWh; pur. 24,700,000 kWh; rev. $1,821,323. (1904)

COLLEGE STATION, City of, 1101 Texas Ave., Box 9960, 77840, 713/696-8868, Linda S. Pioonka; 10,667 met.; no gen.; pur. 220,854,800 kWh; rev. $9,295,153. (1938)

CROSBYTON Power & Light System, 119-23 S. Ayrshire St., 79322, 806/675-2301, Norton Barrett, city mgr.-sec.; 913 met.; gen. 4,000 kW dual-fuel, 11,100,000 kWh; pur. none; rev. $823,865. (1937)

CUERO, City of, Box 512, 77954, 512/275-6114, James H. Pratt, city mgr.; 3,424 met.; no gen.; pur. 64,286,500 kWh; rev. $3,041,557.

DENTON Mun. Utils., 215 E. McKinney, 76201, 817/566-8230, Robert E. Nelson, dir. of utils.; 19,568 met.; gen. 186,555 kW, 173,920 kW steam turbine (gas), 12,635 kW comb. turbine (oil), 100,000,000 kWh; pur. 407,419,742 kWh; rev. $31,797,292. (1905)*

ELECTRA City of, 101 N. Main, 76360, 817/495-2146, Danny Neff, elec. supt.; 1,520 met.; gen. 3,450 kW, 2,200 kW gas-fired eng., 1,250 kW dual-fuel eng., 211,000 kWh; pur. 12,587,155 kWh; rev. $1,547,972. (1939)

FARMERSVILLE Mun. Light & Power, 303 S. Main, 75031, 214/782-6151; Raymond R. Brandon, mayor; no gen.

FLATONIA Elec. Dept., Box 375, 78941, 512/865-3548; Daniel F. Janak, supt.; 955 met.; no gen.; pur. 13,997,792 kWh; rev. $769,024. (1945)

FLORESVILLE, City of, Elec. Light & Power System, 1400 4th St., Box 218, 78114, 512/393-3131, Fred R. Wauters, gen. mgr.; 6,593 met.; no gen.; pur. 93,720,180 kWh; rev. $6,200,270. (1943)

FLOYDADA Power & Light Dept., Box 10, 79235, 806/983-2834, William A. Feuerbacher, city mgr.; 1,223 met.; gen. 7,540 kW, 3,250 kW gas-fired eng., 4,290 kW dual-fuel eng., 1,835,900 kWh; pur. 13,569,600 kWh; rev. $974,603. (1939)

FREDERICKSBURG, City of, Box 111, 78624, 512/997-7521, Walter O. Fuhrmann, util. mgr.; 3,734 met.; no gen.; sales 57,371,261 kWh; rev. $2,858,235. (1935)*

GARLAND Power & Light System, Box 401889, 75040, 214/494-7251, Robert E. Corder, elec. util. dir.; 49,969 met.; gen. 440,840 kW steam turbine (gas), 1,193,748,000 kWh; pur. 447,532,000 kWh; rev. $86,755,070. (1922)*

GARRISON, City of, Box 207, 75946, 713/347-2201; Elmer Boatman, city supt.; 532 met.; no gen.; pur. 6,956,800 kWh; rev. $333,053.

GEORGETOWN, City of, Box 409, 78626, 512/863-5533, Leo Wood, city mgr.; 4,800 met.; no gen.; pur. 91,000,000 kWh; rev. $4,454,000.

GIDDINGS, City of, Lighting & Power System, 118 E. Richmond St., 78942, 713/542-2311, Larry Pippen, city mgr.; 2,112 met.; no gen.; sales 34,082,032 kWh; rev. $2,188,081. (1941)

GOLDTHWAITE Utils., 1218 Fisher St., Box 450, 76844, 915/648-3186, Dale Allen, city mgr.; 745 met.; no gen.; rev. $133,178. (1941)

GONZALES, City of, Box 547, 78629, 512/672-2815, Calvin E. Spacek, city mgr.; 3,048 met.; no gen.; pur. 61,749,100 kWh; rev. $847,473. (1941)

GRANBURY Mun. Elec. Co., 111 S. Houston, Box 490, 76048, 817/573-1114, Robert Coffelt, city mgr.; 2,055 met.; no gen.; pur. 35,000,000 kWh; rev. $2,696,000. (1921)

GREENVILLE, Mun. Lt. & Pwr. Co., Box 1049, 75401, 214/455-2880, John W. Tarpley,

utils. dir.; 9,654 met.; gen. 95,500 kW, 80,500 kW steam turbine (gas), 3,800 kW oil-fired eng., 1,700 kW gas-fired eng., 82,167,890 kWh; pur. 193,861,000 kWh; rev. $6,984,068. (1891)*

GUADALUPE-BLANCO RIVER AUTHORITY, Box 271, Seguin, 78155, 512/379-6305, John Specht, gen. mgr.; gen. 16,080 kW hydro, 79,114,000 kWh; sales 79,114,000 kWh; rev. $1,907,945. (1963)*

HALLETSVILLE Mun. Utils., Box 257, 77964, 512/798-3681, Thomas H. Kostelnik, dir. pub. wrks., 1,400 met.; no gen.; pur. 29,756,200 kWh. (1891)

HEARNE Mun. Elec. System, 210 Cedar St., Box 151, 77859, 713/279-3461, Thomas Taylor, city mgr.; 2,400 met.; gen. 6,500 kW dual-fuel eng., 4,500 kW gas, 2,000 kW oil, 6,500 kW gas turbine; pur. 35,000,000 kWh; rev. $2,100,000. (1912)

HEMPSTEAD, City of, 1125 Austin St., 77445, 409/826-2486, James Vines, mgr. of utils.; 1,716 met.; no gen.; pur. 29.3 million kWh; rev. $670,174. (1940)

HONDO, City of, Elec. System, 1600 Ave. M, 78861, 512/426-3377, Oscar Dominguez, mgr., elec. dept.; 2,456 met.; no gen.; pur. 37,769,200 kWh; rev. $2,417,477. (1942)

JASPER Light & Power, 272 E. Lamar St., 75951, 409/384-4651, Wayne DuBose, city mgr.; 3,853 met.; no gen.; pur. 107,542,000 kWh; rev. $5,182,057. (1948)*

KIRBYVILLE Light & Power Co., 312 E. Drew, 75956, 713/423-2464, C. B. Herndon, mgr.; 1,074 met.; no gen.; pur. 15,330,546 kWh; rev. $725,206. (1974)

LA GRANGE Elec. Utils., Box 339, 78945, 713/968-5805, J. D. Legler, city mgr.; 1,825 met.; no gen.; pur. 19.1 million kWh; rev. $284,359.

LAMPASAS, City of, 302 E. Third St., Box 666, 76550, 512/556-3541, Nolan R. Word, supt.; 2,620 met.; no gen.; pur. 36.6 million kWh; rev. $415,446. (1946)

LEXINGTON Mun. Plants, Box 56, 78947, 409/773-2221, W. D. Eyner, mayor; 575 met.; no gen.; pur. 7,808,700 kWh; rev. $425,687. (1938)

LIBERTY Mun. Elec. System, 1829 Sam Houston St., 77575, 713/336-3684, Roy N. Bennett, city mgr.; 3,758 met.; no gen.; pur. 140,192,890 kWh; rev. $5,728,280. (1939)

LIVINGSTON Mun. Elec. System, 200 W. Church, 77351, 713/327-4311, Tom Nevinger, city mgr.; 2,396 met.; no gen.; pur. 52,488,800 kWh; rev. $2,671,905.

LLANO, City of, Utils., 301 W. Main St., 78643, 915/247-4158, George C. Rogers, city mgr.; 1,633 met.; no gen.; pur. 25.1 million kWh; rev. $1,156,669. (1946)

LOCKHART, City of, Utils., 308 W. San Antonio St., Box 239, 78644, 512/398-3461, Cecil E. Massey, city mgr.; 3,092 met.; no gen.; pur. 44,145,900 kWh; rev. $2,524,373. (1928)

LOWER COLORADO RIVER AUTHORITY, Box 220, Austin, 78767, 512/473-3200, Elof Soderberg, gen. mgr.; 23,411 met. gen. 1,743,250 kW, 568,000 kW steam turbine (coal), 973,000 kW steam turbine (gas), 202,250 kW hydro, 5,561,046,300 kWh; pur. 56,206,766 kWh; rev. $222,826,794. (1935)*

LUBBOCK Power & Light Dept., Box 2000, 79457, 806/763-9381, Carroll McDonald, elec. utils. dir., 29,671 met.; gen. 200,000 kW, 150,000 kW steam turbine (gas), 50,000 kW comb. turbine (gas), 594,370,820 kWh; pur. 108,840,000 kWh; rev. $39,598,817 (1916)*

LULING Utils., 509 E. Crockett, Box 630, 78648, 512/875-2115, Reuben Kimball, city mgr.; 2,362 met.; no gen.; pur. 39 million kWh; rev. $2,212,519. (1941)

MASON, City of, Utils., 124 Moody St., Box 68, 76856, 915/347-6449, Carlton Crouch, city mgr.; 1,629 met.; no gen.; pur. 14,995,949 kWh; rev. $181,964. (1955)

MOULTON, City of, Box 369, 77975, 512/596-4621, Richard Kresta Jr., mgr.; 607 met.; no gen.; pur. 9.3 million kWh; rev. $444,874. (1939)

NEW BRAUNFELS Utils., Box 289, 78130, 512/625-9125, Robert H. Sohn, gen. mgr.; 13,013 met.; gen. 950 kW hydro, 6,338,300 kWh; pur. 530,501,054 kWh; rev. $25,531,220. (1942)*

NEWTON, City of, Box 889, 75966, 713/379-5061, Melvin Forward, supt.; 729 met.; no gen.; rev. $134,621.

PLAINS, City of, 601 E. 11th, Box 550, 79355, 806/456-2288, Jimmy Rice, city mgr.; 365 met.; gen. 1,500 kW eng.

ROBSTOWN, City of Utils., 101 E. Main St., Box 71, 78380, 512/387-3554, John J. Foster, supt. of utils.; 4,478 met.; gen. 18,159 kW, 16,815 kW dual-fuel eng., 1,344 kW gas-fired eng., pur. 14,800,000 kWh; rev. $6,479,440. (1939)*

SAN ANTONIO City Pub. Service Bd., Box 1771, 78296, 512/227-3211, J. K. Spruce, gen. mgr.; 369,631 met.; gen. 836,000 kW coal, 2,400,000 kW gas; 8,953 billion kWh; sales, 8,460 billion kWh; rev. $517,141,675. (1942)*

SAN AUGUSTINE, City of, 301 S. Harrison St., 75972, 713/275-2121, Alton Shaw, city mgr.; 1,150 met.; no gen.; pur. 15,000,000 kWh; rev. $454,869. (1917)

SANGER, City of, 200 Bolivar, Box 578, 76266, 817/458-3322, Lindon Carr, mgr.

SCHULENBURG Utils. Dept., Box 8, 78956, 713/743-4126, S. M. Barrington, mgr.; 1,517 met.; no gen.; pur. 26,439,000 kWh; rev. $1,323,744. (1941)

SEGUIN City of, 205 N. River St., Box 591, 78155, 512/379-3212, Bill E. Polasek Jr., dir. utils & pub. works; 6,800 met.; gen. 500 kW; 250 kW oil-fired eng.; 250 hydro; 1,359,400 kWh; pur. 133,450,800 kWh; rev. $8,096,246. (1907)

SEYMOUR, City of, Box 31, 76380, 817/888-3148, Kevin P. Evans, city admin.; 1,228 met.; no gen.; pur. 19 million kWh; rev. $1,344,449. (1929)

SHINER Light & Water Utils., Box 308, 77984, 512/594-3362, Johnny Kurtz, elec. supt.; 1,000 met.; no gen.

SMITHVILLE City of, Utils., 317 Main St., Box 449, 78957, 512/237-3267, James D. Reader, mayor; 1,788 met.; no gen.; pur. 24,590,400 kWh; rev. $1,409,238. (1939)

SONORA, City of, 201 N. Main, 76950, 915/387-2662, Roy L. Taylor, mgr.; 1,658, met.; no gen.; pur. 20,500,522 kWh; rev. $1,055,457. (1942)*

TIMPSON Light & Water Dept., Box 369, 75975, W. H. Eddins, supt.

TULIA, City of, Power & Light, 201 N. Maxwell St., 79088, 806/995-3547, N. D. Waggoner, elec. util. dir.; 2,301 met.; 17,636 kW dual-fuel eng., 33,230,000 kWh; pur. none; rev. $2,015,341. (1912)

TRINITY RIVER AUTHORITY, Box 60, Arlington, 76010, 817/467-4343, Danny Vance, mgr. (The authority is considering development of a 60-MW hydro project at Lake Livingston.) (1955)*

VERNON, City of, 1830 Main, 76384, 817/552-2581, Sam Phelps, city mgr.; 2,632 met.; gen. 10,000 kW dual-fuel eng.; 3,296,600 kWh; pur. 39,385,600 kWh; rev. $1,966,966.

WAELDER, City of, Box 427, 78959, 512/665-3131, Joe Parr, mayor; 406 met.; no gen.; pur. 5,632,000 kWh; rev. $160,229. (1927)

WEATHERFORD Mun. Util. System, 119 Palo Pinto St., Box 255, 76086, 817/594-5441, Tom Merka, utils. dir.; 7,033 met.; no gen.; pur. 120,993,200 kWh; rev. $7,418,290. (1940)*

WEIMAR, City of, 106 E. Main St., Box 67, 78962, 409/725-8554, F. E. Parks, city mgr.; 1,116 met.; no gen.; pur. 28,030,900 kWh; rev. $1,587,792. (1939)

WHITESBORO Power & Light Plant, 112 W. Main, 76273, 214/564-3122, Lindon Carr, supt., dist. and trans.; 1,400 met.; gen. 2,768 kW eng., 226,000 kWh; pur. 8.2 million kWh.

YOAKUM, City of, Utils., Box 738, 77995, 512/293-3148, J. W. Dodson, city mgr.; 2,972 met.; no gen.; pur. 48,242,500 kWh; rev. $1,057,076.

UTAH

BEAVER CITY Corp., Box 271, 84713, 801/438-2451, Robert O. Christiansen, mayor; 999 met.; gen. 625 kW hydro, 4,419,800 kWh; pur. 14,287,125 kWh.; rev. $877,295.

BLANDING Elec. Dept., Box 68, 84511, 801/678-2791, Francis D. Nielson, mgr.

BOUNTIFUL City Light & Power, 198 S. 200 West, 84010, 801/295-9496, W. Berry Hutchings, mgr.; 10,339 met.; gen. 8,200 kW, 760,200 kWh; pur. 144,425,053 kWh; rev. $4,769,053. (1935)*

BRIGHAM City Light & Power, 20 N. Main, 84302, 801/734-2001, Jim Davis, supt.; 5,833 met.; gen. 1,750 kW hydro, 9,859,900 kWh; pur. 59,707,607 kWh, rev. $3,199,680. (1905)*

ENTERPRISE, City of, Box 336, 84725, 801/878-2212, Richard P. Truman, supt.; 434 met.; no gen.; pur. 5,688,000 kWh. (1972)

EPHRAIM City Light and Power Dept., Box 687, 5 S. Main, 84627, 801/283-4631, Dick Bailey, mgr.; 700 met.; gen. 200 kW hydro, 1.1 million kWh; pur. 16.1 million kWh; rev. $177,500.

FAIRVIEW Mun. Light & Power Plant, 84629, 801/427-3858, Ray D. Eicher, mayor; 380 met.; no gen.; pur. 5.7 million kWh.

FILLMORE CITY, 96 S. Main St., 84631, 801/745-5314, Ralph Robinson, mgr.; 871 met.; no gen.; pur. 24.2 million kWh; rev. $606,589. (1918)

HEBER Light & Power Co., 31 S. 100 West, Box 330, Heber City, 84032, 801/654-1581, Ray Farrell, gen. mgr.; 3,500 met.; gen. 2,325 hydro, 10,859,000 kWh; pur. 33.4 million kWh; rev. $2,450,000 (1909)*

HELPER CITY Corp., 73 S. Main, Box 221, 84526, 801/472-5391, Robert A. Farrell, councilman; 1,208 met.; pur. 14,114,430 kWh. (1900)

HOLDEN Elec. Light System, 84636, 801/795-2253, Evan B. Stevens, electrician; 165 met.; no gen.; pur. 1.5 million kWh; rev. $61,000. (1922)

HURRICANE City Power, Box 580, 84737, 801/635-2811, Rick Marchal, mgr.; 1,100 met.; no gen.; pur. 16,000,000 kWh; rev. $1,200,000. (1974)

HYRUM City Corp., 83 W. Main, 84319, 801/245-6033, Reece D. Nielsen, comm.; 782 met.; gen. 450 kW hydro, 1.2 million kWh; pur. 22.5 million kWh.

KANOSH Town Corp., Box 96, 84637, Frank Harding; 214 met.; no gen.; pur. 1,955,156 kWh.

KAYSVILLE City Corp., 44 No. Main, 84037, 801/546-1235, Walt Meacham, supt. elec. dept.; 2,959 met.; no gen.; pur. 35,458,789 kWh; rev. $2,102,400. (1908)

LEHI CITY, 95 E. 100 North, 84043, 801/768-3545, Glen A. Carter, mgr.; 2,600 met.; no gen.; pur. 19.3 million kWh. (1926)

LEVAN Mun. Elec. System, Box 143, 31550 2nd East, 84639, 801/623-1600, Golden Mangelson, mayor, 217 met.; no gen.; pur. 3,008,005 kWh; rev. $72,000. (1919)

LOGAN, City of, Power & Light Dept., 61 W. 100 North St., Box 527, 84321, 801/752-3060, Vaun Bethers, supt., 15,659 met ; gen. 7,060 kW oil, 1,400 kW hydro, 6,328,120 kWh; sales 137,168,462 kWh; rev. $7,413,313. (1903)

MANTI Light & Power, 191 N. Main 84642, 801/835-2321, Tony Peterson, mgr.

MEADOW Town Corp., Box 180, 84644, 801/842-7281, Dennis L. Bond, councilman; 130 met.; no gen.; pur. 1,596,700 kWh; rev. $95,984.60. (est. 1910)

MONROE City Elec. Light Dept., Box A, 55 N. Main 84754, 801/527-3511, Duane E. Nay, mayor; gen. 225 kW hydro, 1.4 million kWh; pur. 9.3 million kWh.

MORGAN City Corp., Box 267, 84050, 801/829-3551, Dennis D. Woolsey, mgr.; 767 met.; rev. $223,600. (1933)*

MT. PLEASANT Mun. Elec. Light & Power, 115 W. Main St., 84647, 801/462-2456, John Thacker, city mgr.; 750 met.; gen. 300 kW hydro, pur. 12.5 million kWh.

MURRAY City Power Dept., 4800 South 153 West, 84107, 801/264-2651, Jon C. Young, gen. mgr.; 12,957 met.; gen. 8,378 kW comb. turbine, 4,279,000 kWh; pur. 209,209,000 kWh; rev. $9,386,637. (1913)*

NEPHI City Power, 21 E. 100 North, 84648, 801/623-0276, G. Richard Judd, supt.; 1,500 met.; no gen.; pur 27 million kWh; rev. $1,200,000. (1906)*

OAK CITY Mun. Elec. Dept., Box 114, 84649, 801/846-2861, Wilburn Olsen, mgr.; no gen.; pur. 2 million kWh.

PARAGONAH Mun. Light Dept., 84760, 801/477-3605, Scott Barton, mayor; 125 met.; no gen.; pur. 1 million kWh.

PAROWAN City Corp., 5 S. Main, 84761, 801/477-3331, M. DeLance Terry, head electrician; 748 met.; gen. 1,350 kW hydro, 4.7 million kWh; pur. 9.7 million kWh; rev. $371,116. (1929)

PAYSON City Corp., 439 W. Utah Ave., Box 188, 84651, 801/465-9226, Gary Tassainer, mgr.; 1,400 met.; no gen.

PRICE Mun. Corp., Box P, 84501, 801/637-2905, Art Lee Martines, Mayor, 3,462 met.; pur. 47,574,679 kWh; rev. $2,403,031.

PROVO City Power, 251 W. 800 N., Box 658, 84601, 801/373-7170, Bud L. Bonnett, dir., 23,082 met.; gen. 24,000 kW, 10,000 kW dual-fuel eng., 6,500 kW steam turbine (gas), 7,500 kW steam turbine (coal), 397,136,050 kWh; pur. 334,560 kWh; rev. $11,547,631. (1940)*

ST. GEORGE, City of, Util. Comm., 175 E. 200 North, 84770, 801/673-3593, Rudger M. McArthur, dir. of utils., 4,411 met.; gen. 7,508 kW; 6,868 kW eng., 640 kW hydro; pur. 141,250,618 kWh; rev. $3,195,846. (1942)*

SALEM City Power Dept., Box 338, 84653, 801/423-2770, Douglas R. Johnson, mgr.; 755 met.; no gen.; pur. 4,500,000 kWh; rev. $351,000. (1922)*

SPANISH FORK, City of, 50 S. Main St., 84660, 801/798-3568, Robert Disbrow, supt., 3,230 met.; no gen.; pur. 45,000,000 kWh; rev. $2,256,888. (1919)*

SPRING CITY Light & Power, Box 187, 84662, 801/462-2244, Craig Paulsen, mayor, 306 met.; sales 2,738,087; rev. $143,559

SPRINGVILLE Mun. Corp., 50 S. Main, 84663, 801/489-4468, Charles M. Monney, mgr.; 3,000 met.; gen. 920 kW hydro, 4.9 million kWh; pur. 21.2 million kWh; rev. $583,300. (1906)

VERMONT

BARTON Village, Inc., 05822, 802/525-6539, Orra White, supt.; 675 met.

BURLINGTON Elec. Light Dept., 585 Pine St., 05401, 802/658-0300, Robert C. Young, gen. mgr.; 15,198 met.; gen. 54,500 kW, 26,500 kW steam, 28,000 kW gas turbine, 61,122,400 kWh; pur. 322,284,430 kWh; rev. $18,782,782. (1905)*

ENOSBURG FALLS, Water & Light Dept., 15 Main St., 05450, 802/933-4443, Bernard C. Machia, supt., 1,050 met.; gen. 4,101,720 kWh; pur. 11,431,300 kWh; rev. $647,989. (1928)*

HARDWICK Elec. Light Dept., N. Main St., Box 516, 05843, 802/472-5201, William Fee, supt.; 3,301 met.; gen. 800 kW hydro, 600 kW Diesel eng., 2,786,080 kWh; pur. 25,850,790 kWh; rev. $1,307,659.

HYDE PARK, Village of, Inc., Box 37, 05655, 802/888-2310, Gary Anderson, chrmn., bd. of trustees; 784 met.; no gen.; pur. 8,302,200 kWh; rev. $312,429. (1895)

JACKSONVILLE, Village of, 05342, 802/368-7010, Ernest Behrens, pres.; 477 met.; no gen.; sales 3,589,399 kWh; rev. $224,099. (1922)

JOHNSON, Village of, Elec. Dept., Box 603, 05656, 802/635-2301, Kenneth Phelps, supt.; 650 met.; no gen.; pur. 16,758,300 kWh; rev. $648,076. (1894)

LUDLOW, Village of, Elec. Light Dept., Municipal Bldg., Box 289, 05149, 802/228-7766, Dean R. Brown Jr., mgr.; 2,056 met.; no gen.; pur. 26.5 million kWh; rev. $1,340,444. (1900)

LYNDONVILLE Mun. Elec. Plant, 24 Main St., 05851, 802/626-3366, Kenneth C. Mason, Mgr.; 3,400 met.; gen. 2,350 kW hydro, 4.2 million kWh; pur. 39.6 million kWh; rev. $1,693,095. (1896)*

MORRISVILLE Water & Light Dept., 18 Portland St., Box 325, 05661, 802/888-3348, James C. Fox, supt.; 2,495 met.; gen. 10,513,080 kWh; pur. 42,960,290 kWh; rev. $2,237,832. (1895)*

NORTHFIELD, Village of, Elec. Dept., 26 S. Main St., 05663, 802/485-5411, Sailey Ennis, Supt.; 1,618 met.; no gen.; pur. 30,431,924 kWh; rev. $944,700. (1895)

ORLEANS Village Inc., Memorial Square, 05860, 802/754-8584, Slayton R. Marsh, supt.; 600 met.; no gen.; pur. 14,777,720 kWh; rev $652,915. (1925)

READSBORO, Village of, Elec. Light Dept., 114 Main St., Box 236, 05350, 802/423-7593, Robert Berard, supt.; 280 met.; no gen.; pur. 1,879,200 kWh; rev. $98,691. (1936)

SPRINGFIELD, Town of, 05156, 802/885-2582, John Parker. (Bonding authority approved in 1982.)*

STOWE Village, Inc., 05672, 802/253-7215, Richard Wilkins, supt.; 2,750 met.; no gen.; pur. 30.4 million kWh; rev. $597,942.

SWANTON Village Elec. Dept., 120 First St., Box 279, 05488, 802/868-3397, Orman E. Croft, village mgr.; 2,494 met.; gen. 4,000 kW hydro, 19,614,640 kWh; pur. 32,235,030 kWh; rev. $2,287,262. (1894)*

VIRGINIA

BEDFORD, City of, Drawer 807, 24523, 703/586-8963, Robert J. Schnabl, elec. util. dir.; 4,912 met.; gen. 950 kW hydro, 5.7 million kWh; pur. 139.7 million kWh; rev. $5,442,065. (1911)*

BLACKSTONE, Town of, 100 W. Elm St., 23824, 804/292-7251, Richard H. Lee, town mgr.; 1,787 met.; pur 26,000,000 kWh; rev. $1,790,480. (1927)*

BRISTOL Utils. Bd., 300 Lee St., 24201, 703/669-4112, Thomas E. Adams, gen. mgr.; 13,106 met.; no gen.; pur. 409,785,000 kWh; rev. $17,247,675. (TVA power distributor) (1945)

CULPEPER, Town of, Elec. Dept., 118 W. Davis St., 22701-3092, 703/825-8165, J. A. Brookes, elec. supt.; 1,429 met.; gen. 6,616 kW, 1,600 kW gas turbine, 5,016 kW dual-fuel eng., 4,413,900 kWh; pur. 16,988,470 kWh; rev. $1,344,720. (1934)*

DANVILLE, City of, Elec. Dept., Box 3308, 24543, 804/799-5270, John R. Sweeney, dir.; 39,094 met.; gen. 9,500 kW hydro, 21,148,900 kWh; pur. 542,508,640 kWh; rev. $26,805,205. (1886)*

ELKTON, Town of, 173 W. Spotswood Ave., 22827, 703/298-1330, Gerald K. Monger, supt.; 730 met.; no gen.; pur. 13 million kWh; rev. $806,530. (1930s)*

FRANKLIN, City of, Elec. Dept., Box 179, 23851, 804/562-4111, Spurgeon R. Spivey, dir. of pub. util.; 3,738 met.; no gen.; pur. 78.9 million kWh; rev. $5,180,565. (1891)*

FRONT ROYAL, Town of, Elec. Dept., Box 1560, 22630, 703/635-3111, Walter M. Duncan, town mgr.; 4,819 met.; no gen.; pur. 80,387,000 kWh; rev. $3,594,454. (1894)*

HARRISONBURG Elec. Comm., 89 W. Bruce St., 22801, 703/434-5361, Kenneth L. Frantz, gen. mgr.; 8,222 met.; no gen.; pur. 245,884,800 kWh; rev. $10,974,620. (1957)*

IRON GATE Elec. Dept., 24448, E. E. Larman, mayor; 227 met.; pur. 2.1 million kWh; rev. $81,680.

MANASSAS, City of, 9027 Center St., Box 512, 22110, 703/361-4104, Clyde D. Wimmer, dir., pub. wks.; 5,515 met.; gen. 4,000 kW eng., 562,800 kWh; pur 108,461,100 kWh; rev. $6,401,972. (1912)*

MARTINSVILLE, City of, Elec. Dept., Box 1112, 24114, 703/638-3971 ext. 184, Robert I. Corekin, dir.; 7,724 met.; gen. 1,300 kW hydro, 3,293,000 kWh; pur. 169 million kWh; rev. $8,633,257. (1900)*

RADFORD, City of, Elec. Dept., 701-17th St., 24141, 703/639-4521, C. W. Willis, supt., elec. dept.; 5,321 met.; gen. 1,250 kW hydro, 3.4 million kWh; pur. 160,000,000 kWh; rev. 6,473,268. (1930)*

RICHLANDS, Town of, 217 Railroad Ave., 24641, 703/964-2566, C. P. Mahaffey, town mgr.; 2,454 met.; no gen.; pur. 43+ million kWh; rev. $1,804,890.*

RICHMOND Dept. of Pub. Utils., 600 E. Broad St., 23219, 804/780-4884, Danield A. Lynch, dir. pub. utils., gen. 2,100 kW hydro; 7,300,500 kWh; pur. 49,663,624 kWh; rev. $2,919,422. (1910)

SALEM, City of, Elec. Dept., 736 W. Main St., Box 869, 24153, 703/375-3030, Reginald A. Oliver, supt.; 10,504 met.; no gen.; pur. 233,520,000 kWh; rev. $11,880,702. (1894)*

WAKEFIELD, Town of, Box 545, 23888, 804/899-2361, Stephen F. Owen, town mgr.; 540 met.; no gen.; pur. 7,368,000 kWh; rev. $460,000.

WASHINGTON

(Public Utility Districts, abbreviated PUD, are listed alphabetically by county names.)

BENTON COUNTY PUD No. 1, Box 6270, Kennewick, 99336, 509/582-2175, Robert W. Blodgett, mgr.; 31,808 met.; no gen.; pur. 1,397,656,571 kWh; rev. $28,320,581. (1934)*

BLAINE City Light, Box 490, 98230, 206/332-8311, Dale A. Ennor, city mgr.; 1,605 met.; no gen.; pur. 43.3 million kWh; rev. $1,011,477. (1907)*

CASHMERE Light Dept., 101 Woodring St., 98815, 509/782-3513, David L. Simmer, supt.; 1,225 met.; no gen; pur. 41,832,000 kWh; rev. $636,065. (1908)

CENTRALIA, City of, Light Dept., 1100 N. Tower Ave., 98531, 206/736-7611, William C. Cummings, supt.; 7,189 met.; gen. 10,000 kW hydro, 76,145,900 kWh; pur. 107,878,622 kWh; rev. $4,594,249. (1895)*

CHELAN COUNTY PUD No. 1, 327 Wenatchee Ave., Box 1231, Wenatchee, 98801, 509/663-8121, Gerald L. Copp, mgr.; 24,912 met.; gen. 188,659 kW, 188,259 kW hydro, 400 kW oil-fired eng., 1,046,727,000 kWh; pur. 263,309,000 kWh; rev. $69,116,488. (1936)*

CHENEY City Light, 609 Second St., 99004, 509/235-8431, Tom Richardson, dir.; 3,007 met.; no gen.; sales 89,784,000 kWh; rev. $1,476,188. (1931)

CHEWELAH, City of, 210 N. Park St., 99109, 509/935-8311, William D. Weaver, pub. wks. dir.; 1,132 met.; no gen.; pur. 22,137,600 kWh; rev. $591,744. (1903)

CLALLAM COUNTY PUD No. 1, Box 1117, Port Angeles, 98362, 206/452-9771, ext. 232, Phillip K. Jackson, mgr.; 17,866 met.; no gen.; pur. 390,714,455 kWh; rev. $12,547,758. (1944)*

CLARK COUNTY PUD No. 1, 1200 Fort Vancouver Way, Box C-005, Vancouver, 98668, 206/699-3000, Paul Runyan, pres.; bd. of comm.; 82,909 met.; no gen.; pur. 2,659.5 million kWh; rev. $64,862,994. (1938)*

COULEE DAM, City of, Light Dept., 300 Lincoln, Box 156, 99116, 509/633-1091, Donald E. Thoren, supt.; 555 met.; no gen.; pur. 20,928,663 kWh; rev. $292,440. (1959)

COWLITZ COUNTY PUD No. 1, 960 Commerce Ave., Longview, 98632, 206/423-2210, Robert L. McKinney, gen. mgr.; 36,400 met.; gen. 70,000 kW hydro, 243,008,000 kWh; pur. 4,088 billion kWh; rev. $64,269,205. (1936)*

DOUGLAS COUNTY PUD No. 1, 1151 Valley Mall Pkwy., East Wenatchee, 98801, 509/884-7191, Fred W. Lieberg, mgr.; 10,573 met.; gen. 106,000 kW hydro, 577,730,000 kWh; pur. 801,492,000 kWh; rev. $8,874,807. (1945)*

EATONVILLE Power & Light Co., Box 309, 98328, 206/832-3361, Joe Sander, supt.; 500 met.; no gen.; pur. 16,171,330 kWh; rev. $332,798. (1913)

ELLENSBURG, City of, Light Dept., 420 N. Pearl St., 98926, 509/962-9863, Thomas J. Chini, dir. of pub. wks., 4,981 met.; no gen.; pur. 150,559,000 kWh; rev. $4,608,062. (1891)*

FERRY COUNTY PUD No. 1, 686 S. Clark Ave., Box 324, Republic, 99166, 509/775-3325, Kenneth R. Coyle, mgr.; 2,135 met.; no gen.; pur. 58,498,870 kWh; rev. $1,811,513. (1936)

FIRCREST, Town of, 115 Ramsdell St., Tacoma, 98466, 206/564-8900, James R. Valentine, town admn.; 2,155 met.; no gen.; pur. 41,624,802 kWh; rev. $1,091,932. (1925)

FRANKLIN COUNTY PUD No. 1, Box 2407, Pasco, 99301, 509/547-5591, Kenneth R. Engstrom, mgr.; 15,303 met.; no gen.; pur. 592,373,000 kWh; rev. $14,046,351. (1934)*

GRANT COUNTY PUD No. 2, 30 C St., SW, Box 878, Ephrata, 98823, 509/754-3541, John L. McMahan, mgr.; 27,448 met.; gen. 1,620,000 kW hydro, 10,197,314 kWh; pur. 169.3 million kWh; rev. $40,080,806. (1942)*

GRAYS HARBOR COUNTY PUD No. 1, Box 480, Aberdeen, 98520, 206/532-4220, Ron Saville, gen. mgr.; 34,010 met.; gen. 56,000 kW coal, 188,946,999 kWh; pur. 1,202,217,062 kWh; rev. $37,779,644. (1938)*

JEFFERSON COUNTY PUD No. 1, Jefferson County Courthouse, Port Townsend 18368, 206/385-5800, J. Richard Kint., dist. mgr. (Jefferson County PUD No. 1 has preliminary permits for investigating hydroelectric sites but will need voter approval before constructing electric facilities.)*

KITTITAS COUNTY PUD No. 1, 1400 E. Vantage Hwy., Ellensburg, 98926, 509/925-3164, Floyd M. Weir, mgr.; 1,746 met.; no gen.; pur. 39,507,000 kWh; rev. $1,108,000. (1936)*

KLICKITAT COUNTY PUD No. 1, 1313 S. Columbus, Goldendale, 98620, 509/773-5891, Alexander Thomson, gen. mgr.; 7,879 met.; no gen.; pur. 228,406,381 kWh; rev. $7,171,312. (1938)*

LEWIS COUNTY PUD No. 1, 321 N.W. Pacific Ave., Chehalis, 98532, 206/748-9261, Gary H. Kalich, mgr.; 20,277 met.; no gen.; pur. 728,336,142 kWh; rev. $18,475,936. (1936)*

MASON COUNTY PUD No. 1, Rte. 5, Box 555, Shelton, 98584, 206/877-5249, John P. Robertson, mgr.; 3,623 met.; no gen.; pur. 53,975,850 kWh; rev. $2,007,655. (1936)*

MASON COUNTY PUD No. 3, Box 490, Shelton, 98584, 206/426-8255, Dennis E. Rohr, gen. mgr.; 21,060 met.; no gen.; pur. 383,370,776 kWh; rev. $9,692,318. (1939)*

McCLEARY Light and Power, Box 360, 98557, 206/495-3264, Ted Rakoski, mayor; 794 met.; no gen.; pur. 34.1 million kWh; rev. $681,654. (1948)*

MILTON, Town of, Box "D," 98354, 206/922-8733, Robert J. Smart, supt. of pub. works; 1,500 met.; no gen.; pur. 28.9 million kWh; rev. $450,217. (1947)

OKANOGAN COUNTY PUD No. 1, Box 912, Okanogan, 98840, 509/422-3310, Harlan Warner, mgr.; 17,076 met.; no gen.; pur. 482,879,867 kWh; rev. $9,732,607. (1945)*

PACIFIC COUNTY PUD No. 2, 405 Duryea St., Box 472, Raymond, 98577, 206/942-2411, John E. Dunsmoor, mgr.; 13,569 met.; no gen.; pur. 236,582,861 kWh; rev. $7,014,003. (1940)

PEND OREILLE COUNTY PUD No. 1, Box 190, Newport, 99156, 509/447-3137, Jim McCampbell, mgr.; 3,509 met.; gen. 60,000 kW hydro, 475,750,768 kWh; sales 473,860,014 kWh; rev. $3,791,548. (1948)*

PORT ANGELES City Light, Dept. 240 W. Front St., Box 1150, 98362, 206/457-0411, Lew Cosens, dir.; 8,352 met.; no gen.; pur. 647,047,400 kWh; rev. $11,955,008. (1893)

RICHLAND, City of, 505 Swift Blvd., Box 190, 99352, 509/943-9161 ext. 208, J. Keith Sedore, dir.; 14,599 met.; no gen.; pur. 541,000,000 kWh; rev. $14,327,825. (1958)*

RUSTON Elec. Util., 5117 N. Winnifred St., Ruston (Tacoma), 98407, 206/759-3544, Hubert Glenn Roberts, supt.; 335 met.; no gen.; pur. 4,914,000 kWh; rev. $81,955. (1928)

SEATTLE City Light, 1015 Third Ave., 98104, 206/625-3200, Joseph P. Recchi, supt.; 293,055 met.; gen. 1,383,204 kW, 1,276,790 kW hydro, 106,384 kW coal, 30 kW oil (steam turbine), 6,769,024,000 kWh; pur. 2,592,118,000 kWh; rev. $148,409,611. (1902)*

SKAMANIA COUNTY PUD No. 1, Box 500, Carson, 98610, 509/427-5126, William F. Yee, mgr.; 4,139 met.; no gen.; pur. 104,902,270 kWh; rev. $2,993,585. (1938)*

SNOHOMISH COUNTY PUD No. 1, 2320 California Ave., Box 1107, Everett, 98201, 206/258-8211, William G. Hulbert Jr., mgr.; 153,020 met.; no gen.; pur. 4,730 billion kWh; rev. $117,759,514. (1949)*

STEILACOOM, Town of, 1715 Lafayette St., 98388, 206/582-1900, Jim Richards, util. supt.; 2,011 met.; no gen.; pur. 39,074,595 kWh; rev. $773,802. (1914)

SUMAS, City of, Cherry St., Box 9, 98295, 206/988-5711, Lawrence Silvis, util. supt.; 359 met.; no gen.; sales 7,027,729 kWh; rev. $257,981. (est. 1934)

TACOMA, City of, Dept. of Pub. Utils., Light Div., Box 11007, 3628 S. 35th St., 98411, 206/383-2471, Paul J. Nolan, dir. of utils.; 107,230 met.; gen. 771,700 kW; 659,700 kW hydro, 112,000 kW coal; 3,079 billion kWh; pur. 2,576 billion kWh; rev. $72,971,938. (1893)*

VERA WATER AND POWER DISTRICT, 601 N. Evergreen Rd., Veradale, 99037-0630, 509/924-3800, Joseph W. Custer, gen. mgr.; 5,368 met.; no gen.; pur. 150,000,000 kWh; rev. $3,400,159. (1938)*

WAHKIAKUM COUNTY PUD No. 1, Box 248, Cathlamet, 98612, 206/795-3266; Charles F. Emerick, pres., bd. of comm.; 1,709 met.; no gen.; pur. 38,653,200 kWh; rev. $1,119,577. (1940)*

WATERVILLE, Town of, Elec. Util., Box 580, 98858, 509/745-8871, C. A. Smith, supt.; 523 met.; no gen.; pur. 13,656,000 kWh; rev. $296,175. (1902)

WHATCOM COUNTY PUD, 215 Mason Bldg., Bellingham, 98225, 206/384-1410, Frank Spisak, mgr.; 3 met. (Mobil Oil Co. and two water-treatment plants); no gen.; pur. 106,228,000 kWh; rev. $1,101,198. (1954)

WEST VIRGINIA

NEW MARTINSVILLE Mun. Utils., 201 Main St., 26155, 304/455-3442, W. L. Drennen, supt.; 1,894 met.; no gen.; pur. 23,532,000 kWh; rev. $1,041,225. (1929)*

PHILIPPI, City of, 108 N. Main St., 26416, 304/457-3700, Joseph P. Mattaliano, city mgr.; 1,708 met.; no gen.; pur. 26,947,200 kWh. rev. $1,249,889. (1932)*

WISCONSIN

ALGOMA Util. Comm., 520 Parkway Ave., 54201, 414/487-5556, Roland C. LeCloux, supt.; 1,780 met.; no gen.; pur. 28,922,000 kWh; rev. $1,553,056. (1903)*

ARCADIA Elec. Util., 115 S. Jackson St., 54612, 608/323-7347, Ronald L. Darbo, supt.; 1,160 met.; pur. 26,301,530 kWh; rev. $1,050,899. (1903)*

ARGYLE Mun. Elec. & Water Dept., 53504, 608/543-3335, Rick Phillipson, supt.; 410 met.; gen. 1,540 kW oil-fired eng.; 50 kW hydro; 216,360 kWh; pur. 4,785,800 kWh.

BANGOR Mun. Util., Box 68, 54614, 608/486-2151, Wesley Kjome, mgr.; 1,173 met.; no gen.; pur. 27,595,200 kWh; rev. $1,128,325

BARRON Light & Water Dept., 1303 E. Division Ave., 54812, 715/537-3855, David Hoff, supt.; 1,386 met.; gen. 4,372 kW, 4,200 kW oil-fired eng., 172 kW hydro, 505,910 kWh; pur. 26,054,503 kWh; rev. $1,147,795. (1908)*

BELMONT Mun. Light & Water Util., 222 Mound Ave., 53510, 608/762-5142, Tom Buss, supt.; 408 met.; no gen.; sales 3,174,000 kWh; rev. $138,767. (1900)

BENTON Elec. & Water Util., 53803, 608/759-3721, Tom Frazier, supt.

BLACK EARTH Elec. Util., 1210 Mill St., 53515, 608/767-2563, Jon Zimmerman, supt.; 843 met.; no gen.; sales 9,231,800 kWh, rev. $473,374.

BLACK RIVER FALLS Mun. Utils., 119 N. Water St., 54615, 715/284-9463, Delmar D. Dahl, util. adm.; 2,166 met.; gen. 4,140 kW, 3,210 kW oil-fired, 930 kW hydro, 3.3 million kWh; pur. 32.3 million kWh; rev. $1,184,373. (1904)*

BLOOMER Elec. Util., 1503 Main St., 54724, 715/568-3032, Charles H. Cole, mgr., 1,538 met.; no gen.; pur. 31,214,400 kWh; rev. $1,244,698. (1908)

BOSCOBEL Utils., 240 Commercial Row, 53805, 608/375-5429, Bruce Folbrecht, mgr.; 1,547 met., no gen.; pur. 23,004,000 kWh; rev. $1,123,169. (1898)*

BRODHEAD Water & Lighting Comm., 1108 11th St., 53520, 608/897-2505, Carrol Sheafor, supt.; 1,502 met.; no gen.; pur. 22,062,644 kWh; rev. $1,021,525. (1913)

CADOTT Light & Water Util., Village Hall, Box 37, 54727, 715/289-4282, Leona Hart, clerk; 595 met.; no gen.; pur. 9,268,800 kWh; rev. $408,247. (1901)

CASHTON Mun. Light & Water, 709 Main St., 54619, 608/386-5160, John Hauser, supt., 650 met.; gen. 750 kW oil-fired eng., 1,163 kW dual-fuel eng.; 5,000 kWh; pur. 4.5 million kWh; rev. & 81,000. (1909)

CEDARBURG Light & Water Comm., N30 W5926 Lincoln Blvd., Box 82, 53012, 414/377-1280, Glenn W. Frank, mgr.; 4,303 met.; no gen.; pur. 77,817,600 kWh; rev. $4,008,565. (1914)*

CENTURIA Mun. Elec. Util., 54824, 715/646-2300, Glenn Melin, pres.; 374 met.; no gen.; pur. 4.1 million kWh; rev. $153,894. (1946)

CLINTONVILLE Water & Elec. Util., 64 E. Twelfth St., Box 359, 54929, 715/823-3518, John H. Schroeder, supt.; 3,412 met.; no gen.; pur. 40,695,633 kWh; rev. $1,654,445.

COLUMBUS Water & Light Dept., 361 N. Water St., 53925, 414/623-3100, Grant E. Allar, supt.; 1,944 met.; no gen.; pur. 35,151,200 kWh; rev. $1,574,461. (1899)*

CORNELL Mun. Elec. Util., 222 Main St., Box 796, 54732, 715/239-6589, Ed Jenneman, utils. supv.; 753 met.; no gen.; pur. 9,448,000 kWh; rev. $431,547. (1937)

CUBA CITY Mun. Elec. & Water Plant, 108 N. Main, 53807, 608/744-2152, Melvin Domres, Dir. of Pub. Wks.; no gen.; pur. 12,892,800 kWh; rev. $505,385. (1921)*

CUMBERLAND Mun. Util., 1265 Second Ave., Box 726, 54829, 715/822-8298 or 822-2595, Charles Christensen, gen. mgr.; 1,104 met.; gen. 10,914 kW, 8,650 kW oil-fired; pur. 21,695,197 kWh; rev. $1,337,775. (1898)*

DEERFIELD Elec. & Water Util., 113 N. Main, 53531, 608/764-5414, W. C. Halverson, comm. pres., 613 met.; no gen.; pur. 80,809,000 kWh; rev. $459,703. (1915)*

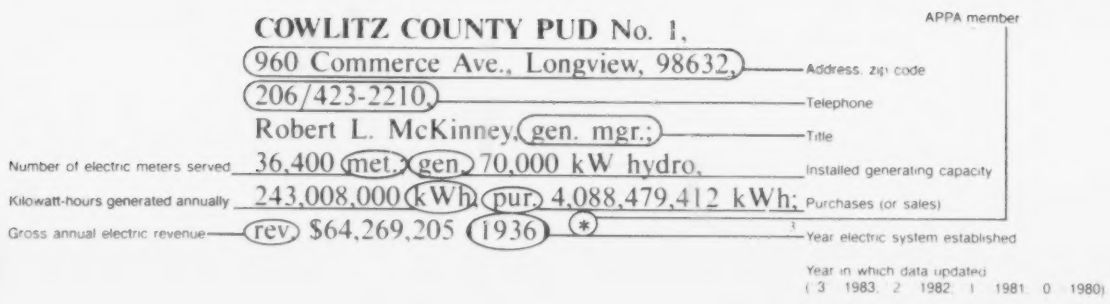
EAGLE RIVER Light & Water Dept., Box 218, 54521, 715/479-8121, Lee McFaul, mgr.; 1,204 met.; no gen.; pur. 20,242,315 kWh; rev. $1,022,198. (1898)*

ELKHORN Light & Water Comm., 23 W. Walworth Ave., 53121, 414/723-2910, Anthony F. Biba, supt.; 2,409 met.; no gen.; pur. 51,753,355 kWh; rev. $2,596,352. (1898)*

ELROY Light & Water Util., 102 Liberty St., Box 929, 53929, 608/462-8245, Royce Lockner, util. mgr., 929 met.; gen. 9,600 kWh dual-fuel eng.; pur. 12,264,655 kWh; rev. $442,797. (1899)

EVANSVILLE Water & Light Dept., 31 S. Madison St., 53536, 608/882-4422, Wayne E. Ballard, mgr.; 2,158 met.; no gen.; pur. 37,519,680 kWh; rev. $1,589,144. (1902)

FENNIMORE Mun. Utils., 860 Lincoln Ave., 53809, 608/822-6110,



Charles J. Leuck, dir. pub. wks.; 1,143 met.; gen. 2,158 kW oil-fired eng., 111,300 kWh; pur. 18,990,223 kWh; rev. $856,224. (1904)* [2]

FLORENCE Water & Light Comm., Box 67, 54121, 715/528-3330, Robert Friberg, supt.; 748 met.; no gen.; sales 7,151,000 kWh; rev. $336,688. (1898)* [2]

FOOTVILLE Elec. Comm., Center St., Box 187, 53537, 608/876-6581, Dale Kitelinger, supt.; 350 met.; no gen.; pur. 3,495,200 kWh; rev. $117,915. (1920) [2]

GRESHAM Mun. Util., Main St., Box 157, 54128, 715/787-3244, Alvin Christ, supt.; 836 met.; gen. hydro, 3,544,060 kWh; pur. 6,064,200 kWh; rev. $367,465. (1928) [3]

HARTFORD Elec. Util., Box 31, 53027, 414/673-4000, L. M. Darin, dir.; 2,850 met.; no gen.; pur. 56,854,600 kWh; rev. $2,473,136. (1912)* [2]

HAZEL GREEN Elec. Util., Box 367, 1610 Fairplay, 53811, Box 367, 608/854-2953, Herman Richardson, dir. pub. wks.; 518 met.; no gen.; pur. 6,182,400 kWh; rev. $319,098. (1908) [3]

HUSTISFORD Elec. Util., 53034, 414/349-3650, Steve Thompson, supt.; 750 met.; no gen.; pur. 6 million kWh. [0]

JEFFERSON Water & Elec. Dept., 121 W. Racine St., 53549, 414/674-3313, H. R. Waraczynski, mgr.; 3,180 met.; no gen.; pur. 83,407,752 kWh; rev. $3,668,590. (1901)* [2]

JUNEAU Util. Comm., Box 163, 53039, 414/386-3321, Michael A. Frey, dir. pub. wks.; 782 met.; no gen.; pur. 22,368,000 kWh; rev. $1,032,090. (1914) [3]

KAUKAUNA Elec. & Water Dept., 777 Island St., 54130, 414/766-5721, Ernest J. Mullen, gen. mgr.; 8,510 met.; gen. 6,000 kW oil-fired, 20,000 kW gas (combus. turbine), 15,000 kW hydro,105,455,000 kWh; pur. 341,963,000, kWh; rev. $14,941,677. (1912)* [3]

KIEL Utils., City Hall, 621 Sixth St., 53042, 414/894-2909, Ralph H. Menne, supt., 1,542 met.; no gen.; pur. 32,304,600 kWh; rev. $1,518,688. (1914)* [3]

LA FARGE Mun. Elec. Co., Box 838, 54639, 608/625-2333, Richard Herken, mgr.; 631 met.; no gen.; pur. 4,497,708 kWh; rev. $233,534. [2]

LAKE MILLS Light & Water Dept., 101 Church St., 53551, 414/648-2344, Thomas George Popp Jr., city mgr.; 3,203 met.; no gen.; pur. 42,529,390 kWh; rev. $1,970,858. (1911)* [3]

LODI Mun. Elec., City Hall, 113 S. Main St., 53555, 608/592-3246, Rodney Maier, supt.; 968 met.; no gen.; pur. 12,974,164 kWh; rev. $597,497. (1894) [3]

MANITOWOC Pub. Utils., 1303 S. Eighth St., 54220, 414/683-4640, Edmund J. Garber, gen. mgr.; 14,365 met.; gen. 69,975,000 kWh; pur. 215,609,000 kWh; rev. $12,027,113. (1914)* [3]

MARSHFIELD Elec. &Water Dept., 2000 S. Roddis Ave., 54449, 715/387-1195, Robert R. Pawelski, util. mgr.; 9,768 met.; gen. 33,000 kW, 28,000 kW steam turbine (coal), 5,000 kW steam turbine (gas), 77,190,100 kWh; pur. 158,409,000 kWh; rev. $10,707,913. (1904)* [3]

MAZOMANIE Electric, 133 Crescent St., 53560, 608/795-2217, Dean G. Sanftleben, village electrician, 600 met.; no gen.; pur. 7,101,600 kWh; rev. $310,355. [2]

MEDFORD Elec. Util., 330 S. Whelen Ave., 54451, 715/748-3211, William J. Werner, mgr.; 2,458 met; no gen.; pur. 56,279,205 kWh; rev. $2,486,549. (1944)* [3]

MENASHA Elec. & Water Utils., Box 340, 54952, 414/729-5180, James W. Austin, gen. mgr.; 6,534 met.; gen. 29,180 kW coal, 47,608,000 kWh; pur. 75,528,000 kWh; rev. $6,104,418. (1905)* [3]

MERRILLAN Mun. Elec. Util., 101 S. Main St., Box 70, 54754, 715/333-2332, Ted Meinholdt, util. supt. 240 met.; gen. 799 kW, 724 kW oil-fired eng., 75 kW hydro, 331,100 kWh; pur. 2,633,797 kWh; rev. $142,544. (1904) [3]

MT. HOREB Elec. Util., 138 E. Main St., 53572, 608/437-3084, Elwin K. Bendickson, mgr.; 1,993 met.; no gen.; pur. 30,571,200 kWh; rev. $1,381,408. (1939) [3]

MUSCODA Light & Water Comm., 109 N. Second St., 53573, 608/739-3390, Joseph H. Drone, supt.; 843 met.; no gen.; pur. 12.3 million kWh; rev. $483,600. (1907)* [3]

NEW GLARUS Mun. Light & Water Wks., 313 2nd St., 53574, 608/527-2913, Orville R. Jorenby, supt.; 817 met.; no gen.; pur. 13,764,000 kWh; rev. $582,217. (1902) [3]

NEW HOLSTEIN Pub. Utils., 2110 Washington St., 53061, 414/898-5776, Ernest R. Dyer Sr., supt. 1,927 met.; no gen.; sales 43,352,000 kWh; rev. $1,890,451. (1912)* [2]

NEW LISBON Mun. Light & Water Dept., 218 E. Bridge St., 53950, 608/562-3103, Fred J. Lorenz, supt., 695 met.; gen. 4,439 kW dual-fuel, 314,000 kWh; pur. 10,338,000 kWh; rev. $10,077,000. [2]

NEW LONDON Utils., 400 E. North Water St., Box 304, 54961, 414/982-2650, Robert S. Houk, mgr.; 2,745 met.; no gen.; pur. 123,116,983 kWh, rev. $5,699,940. (1903)* [3]

NEW RICHMOND Elec., 156 E. First St., 54017, 715/246-4167, Donald E. Preble, mgr., 2,117 met.; no gen.; pur. 39,659,780 kWh; rev. $1,593,945. (1890)* [3]

OCONOMOWOC, City of, Utils., 174 E. Wisconsin Ave., 53066, 414/569-2198, Robert W. Nettnin, dir. of utils.; 5,312 met., no gen.; pur. 108,383,173 kWh; rev. $5,000,770. (1900)* [3]

OCONTO FALLS Water & Light, Box 70, 54154, 414/846-2911, George Barber, dir. pub. wks.; 1,180 met.; no gen.; pur. 15,000,000 kWh; rev. $736,372. (1933)* [3]

PARDEEVILLE Elec. Comm., 124 Lake St., 53954, 608/429-3054, Larry Brown, dir. pub. wks.; 935 met.; gen. 50 kW hydro, 103,437 kWh, pur. 11,851,200 kWh; rev. $541,668. (1945) [3]

PLYMOUTH Utils. Comm., 12 S. Milwaukee St., Box 267, 53073, 414/893-1471, John T. MacKinnon, mgr., 5,087 met.; no gen.; pur. 109,296,000 kWh; rev. $4,868,055. (1895) [3]

PRAIRIE DU SAC Elec. Util., 560 Park Ave., 53578, 608/643-2421, Ben Ward, supt.; 1,003 met.; no gen.; pur. 13,221,000 kWh; rev. $582,450. (1918) [3]

PRINCETON Mun. Elec., 438 W. Main St., 54968, 414/295-6612, Duane G. Norem, mgr.; 880 met.; no gen.; pur. 9,795,600 kWh; rev. $459,306. (1902) [3]

REEDSBURG Util. comm., 344 S. Willow, 53959, 608/524-4381, Robert D. Utley, supt., 2,472 met.;

no gen.; pur. 69.6 million kWh; rev. $2,547,471. (1894)

RICE LAKE Elec. Util., 320 W. Coleman St., 54868, 715/234-7004, John E. Brandt, supt.; 3,800 met.; no gen.; pur. 84,093,380 kWh; rev. $2,964,000. (1918)

RICHLAND CENTER Mun. Elec. Util., Box 29, 53581, 608/647-4448, Richard J. Steiner, util. admr.; 2,706 met.; gen. 7,500 kW coal, 24,765,500 kWh; pur. 37,130,000 kWh; rev. $3,298,660. (1904)*

RIVER FALLS Mun. Util., 115 E. Elm St., 54022, 715/425-5313, Elmer K. Thon Jr., util. adm.; 3,216 met.; gen. 13,344 kW, 4,526 kW comb. cycle (oil), 8,530 kW comb. cycle (dual-fuel), 228 KW hydro; 2,167,850 kWh; pur. 60,057,801 kWh; rev. $2,716,004. (1900)*

SAUK CITY Elec. & Water Dept., 806 Water St., 53583, 608/643-8336, or 643-3932, Donald Moen, util., supt.; 1,261 met.; no gen.; pur. 22,789,400 kWh; rev. $1,079,709. (1909)

SHAWANO Mun. Utils., 122 N. Sawyer St., 54166, 715/526-3131, Lloyd (Lee) A. Ebert, gen. mgr.; 4,041 met.; no gen.; pur. 129,208,000 kWh; rev. $5,608,400. (1900)*

SHEBOYGAN FALLS Utils., 511 Adams St., 53085, 414/467-6446, Robert Selchert, supt., 2,760 met.; no gen.; pur. 88,362,000 kWh; rev. $3,732,741. (1916)

SHULLSBURG Elec. Util., 112 S. Gratiot St., Box 580, 53586, 608/965-4901, Ronald Schardt, electrn; 700 met.; no gen.; pur. 6,446,810 kWh; rev. $348,637. (1937)

SLINGER Utils., 220 Slinger Rd., 53086, 414/644-5265, Dean A. Otte, village clerk; 751 met.; no gen.; pur. 11,764,800 kWh; rev. $581,034. (1911)*

SPOONER Mun. Elec. Util, City Hall, 54801, 715/635-2327, Robert J. La Page, supt.; no gen.

STOUGHTON Mun. Elec. Util., 211 Water St., Box 383, 53589, 608/873-3379, Robert P. Kardasz, dir. of pub. wks.; 5,246 met.; no gen.; pur. 74,656,800 kWh; rev. $3,321,887. (1890)

STRATFORD Elec., 54484, 715/687-4118, W. F. Lange, supt.; 562 met.; no gen.; pur. 6.9 million kWh; rev. $311,527. (1920)

STURGEON BAY Utils., 230 E. Vine St., Box 249, 54235, 414/743-5542, William Baudhuin, supt.; 6,134 met.; no gen.; pur. 109,152,000 kWh; rev. $5,820,218. (1904)*

SUN PRAIRIE Elec. Util., 125 W. Main St., 53590, 608/837-5500, George F. Straus, supt.; 5,135 met.; no gen.; pur. 78,000,000 kWh; rev. $3,673,723. (1910)*

TREMPEALEAU Mun. Elec. Dept., 50 E. Third St., 54661, 608/534-6434; Duane Freuchte, chief officer; 678 met.; no gen.; pur. 6,760,800 kWh; rev. $273,376. (1915)

TWO RIVERS Water & Light Dept., 1415 Lake St., 54241, 414/793-1191, ex. 41, William C. Pappathopoulos, dir. util.; 5,570 met.; no gen.; pur. 69,207,600 kWh; rev. $3,539,545. (1901)*

VIOLA Mun. Elec. Util., Box 38, 54664, 608/627-1829; Kirby Hamilton, mgr.; 474 met.; gen. 1,076 kW oil-fired eng.; 11,400 kWh; pur. 3,786,042 kWh; rev. $162,290.

WATERLOO Water & Light, 122 S. Monroe St , 53594, 414/478-2260, John Foley, supt.; 1,406 met.; no gen.; pur. 33,413,761 kWh; rev. $1,552,111. (1908)*

WAUNAKEE Water & Light, 205 Klein Dr.,53597, 608/849-4111, Edward L. Brockner, supt.; 1,648 met.; no gen.; pur. 29,220,000 kWh; rev. $1,348,880. (1915)*

WAUPUN Pub. Utils., 220 N. Forest St., 53963, 414/324-3556, Albert F. Leu, mgr.; 3,220 met.; no gen.; pur. 55,064,800 kWh; rev. $2,456,277. (1894)*

WESTBY Elec. & Water Util., 104 First St., 54667, 608/634-3416, Dean Warren, supvr.; 867 met.; no gen.; pur. 14,583,900 kWh; rev. $605,310. (1915)*

WHITEHALL Mun. Elec. Util., 1631 Main St., 54773, 715/538-4353, Larry H. Bocock, elec. supt.; 833 met.; no gen.; pur. 15,028,800 kWh; rev. $613,497. (1940)*

WISCONSIN DELLS Elec. Util., 300 LaCrosse St., 53965, 608/253-2542, Kenneth D. Weber, dir. pub. wks.; 1,497 met.; no gen.; pur. 29,407,200 kWh; rev. $1,396,718. (1894)

WISCONSIN RAPIDS Water Wks. & Lgt. Comm., 221 Sixteenth St., S., Box 399, 54494, 715/423-6300, Robert F. Dickinson, gen. mgr.; 10,208 met.; no gen.; pur. 162,393,600 kWh; rev. $8,120,857. (1890)*

WONEWOC Elec. Util., Box 303, City Hall, 53968, 608/464-3114, Peter A. Carr; 576 met.; no gen.; pur. 5,822,400 kWh; rev. $221,419.

WYOMING

BASIN Mun. Light & Water Plant, Box 618, 82410, 307/568-2524, Dick Sanders, supt.; 700 met.; no gen.

CODY Mun. Elec. Dist. System, 1338 Rumsey Ave., 82414, 307/527-7513, Neal T. Olson, Supt.; elec. dept., 2,700 met.; no gen.; pur. 35.2 million kWh; rev. $2,873,922. (1935)

DEAVER Utils., 82421, S. E. Dillon, mgr.; 52 met.; no gen.

FORT LARAMIE, Town of, Box 177, 82212, 307/837-2711, Joyce Gilchriest; 160 met.; no gen.; pur. 1,207,800 kWh; rev. $101,597.

GILLETTE Mun. Elec. Util., Box 3003, 82716, 307/686-5265, Glen W. Taylor, dir. pub. wks.; 6,795 met.; no gen.; pur. 127,709,000 kWh; rev. $5,470,215. (1915)*

GUERNSEY Elec. Dept., 82214, 307/836-2522, Charles M. (Pete) Green, town supt.; 607 met.; no gen.; pur. 6,000,000 kWh; rev. $1,207,065

LINGLE, Town of, 82223, 307/837-2422, Harry Bremer, supt.; 276 met.; no gen.; pur. 2,629,968 kWh; rev. $24,861.

LUSK Light & Power Dept., Box 385, 82225, 307/334-3612, Alvin G. Titchener, supt. pub. wks.; 1,300 met.; no gen.; pur. 277,108 kWh; rev. $390,475. (1919)

PINE BLUFFS, Town of, Box 378, 82082, 307/245-3746, Ronald Spier, supt.; 773 met.; no gen.; rev. $310,853. (approx. 1910)

POWELL, City of, 270 N. Clark St., Box 1008, 82435, 307/754-5106, Raymond Lutterman, gen. commr.; 2,389 met.; no gen.; sales 24,335,000 kWh; rev. $726,294. (1921)*

TORRINGTON Mun. Elec. Dept., 336 W. Railroad, 82240, 307/532-2422, Lawrence Mitchell, supt.; 3,167 met.; no gen.; pur. 32.6 million kWh; rev. $1,200,000. (1914)*

WHEATLAND, Town of, 600-9th St., 82201, 307/322-2962, J. R. Dunham, mayor; 2,200 met.; no gen.; pur. 31,321,000 kWh; rev. $1,356,890. (1936)

AMERICAN SAMOA

AMERICAN SAMOA POWER AUTHORITY, Pago Pago, American Samoa, 96799, 633-5251, James A. Carriere, executive director, 4,700 met.; gen. 24,000 kW eng., 60 million kWh; pur. none; rev. $4,200,000.*

CANAL ZONE

PANAMA CANAL Commission, APO Miami 34011, phone 52-3421, Frank A. Lee, chief, elec. div.; 4,820 met.; gen. 162,000 kW, 55,500 kW oil, 60,000 kW gas turbine, 46,500 kW hydro, 553 million kWh; pur. 12 million kWh; rev. $26,612,000. (1914)

GUAM

GUAM POWER AUTHORITY, Box 2977, Agana, Guam, 96910-2977, 472-6801, Frank G. Blaz, gen. mgr.; 24,387 met.; gen. 314,000 kW, 282,000 kW oil, 32,000 kW oil-fired engine, 1,013.9 million kWh; pur. none; rev. $49,897,652. (1968)*

PUERTO RICO

PUERTO RICO ELECTRIC POWER AUTHORITY, Box 4267, San Juan, P.R., 00936, 809/721-1212, Wilfredo Marcial Gonzales, exec. dir.; 1,015,281 met.; gen. 3,080,000 kW oil (steam turbine), 418,000 kW oil (combus. turbine), 592,000 kW oil (comb. cycle), 18,500 kW oil (eng.), 98,180 kW hydro; 12,412,620,000 kWh; sales 10,235,500,000 kWh; rev. $1,124,112,000. (1941)*

VIRGIN ISLANDS

VIRGIN ISLANDS WATER AND POWER AUTHORITY, Box 1450, Charlotte Amalie, St. Thomas, U.S. Virgin Islands, 00801, 809/774-3552, Raymond L. George, exec. dir.; 38,040 met.; gen. 202,200 kW, 86,000 kW oil, 16,200 kW oil-fired, 100,000 kW gas turbine, 443.9 million kWh; pur. 348 million kWh; rev. $53,042,918. (1965)*

ORGANIZATIONS OF LOCAL PUBLICLY OWNED SYSTEMS

NATIONAL ASSOCIATION

AMERICAN PUBLIC POWER ASSOCIATION, 2301 M St. N.W., Washington, D.C. 20037, 202/775-8300, Alex Radin, exec. dir.; Robert L. McKinney, Cowlitz County Public Utility District, Longview, Wash., pres.; J.K. Spruce, Public Service Board, San Antonio, Texas, pres.-elect; Gordon W. Hoyt, Anaheim, Cal., vice pres.; C.M. Perkins, Salt River Project, Phoenix, Ariz., treas.

REGIONAL ASSOCIATIONS

COMMITTEE ON POWER FOR THE SOUTHWEST, Box 1360, Suite 3, 400 S. Broadway, Edmond, Okla. 73083, 405/340-1900, Michael McDowell, exec. dir.; Wayne DuBose, Jasper, Texas, chmn.; Walter E. Oestreich, Callaway Electric Co-op., Fulton, Mo., vice pres.; Maynard Human, Western Farmers Electric Cooperative, Anadarko, Okla., sec.-treas.*

GREAT LAKES ELECTRIC CONSUMERS ASSOCIATION, Suite 732, 2100 Pennsylvania Ave., N.W., Washington, D.C. 20037, 202/296-3788, Frank Frisk, exec. dir.; William Matson, Harrisburg, Pa., pres.; Gary Zimmerman, Winnetka, Ill., first vice pres.; Steve Smith, Bloomington, Ind., second vice pres.; Lynn C. Hill, Columbus, Ohio, sec.-treas.

INTERMOUNTAIN CONSUMER POWER ASSOCIATION, 8722 S. 300 West, Sandy, Utah 84070, 801/566-3933, Carolyn McNeil, gen. mgr.; R. Leon Bowler, Beryl, Utah, pres.; Ted L. Olson, Ephraim, Utah, vice pres.; Ray Farrell, Heber, Utah, sec.; Vaun Bethers, Logan, Utah, treas.*

MID-WEST ELECTRIC CONSUMERS ASSOCIATION, Suite 300, Evergreen Executive Bldg., 27972 Meadow Drive, Box 910, Evergreen, Colo. 80439, 303/674-6676, Fred G. Simonton, exec. dir.; Robert McColly, Central Montana G&T, Hinsdale, Mont., pres.; Joseph Brus, Lyon-Lincoln REC Tyler, Minn., vice-pres.; Louis Stroup Jr., McPherson, Kan., sec.-treas.*

MISSOURI BASIN SYSTEMS GROUP, Box 2327, Estes Park, Colo. 80517; 303/586-2393; Robert F. Risch, exec. dir.; Dennis Lindberg, Odebolt, Iowa, pres.; Harvey K. Malon, Rapid City, S.D., sec.-treas.

NORTHEAST PUBLIC POWER ASSOCIATION, Suite 104, 148 Linden St., Wellesley, Mass. 02181, 617/237-9126, Chapman Stockford, gen. mgr.; William J. Wallace, Wakefield, Mass., pres.; Howard Peters, Pascoag, R.I., vice pres.; Robert O. Toombs, East Montpelier, Vt., second vice pres.; William F. O'Connor, Taunton, Mass., sec.; James Dean, treas.*

NORTHWEST PUBLIC POWER ASSOCIATION, 1310 Main St., Box 1307, Vancouver, Wash. 98666, 206/694-6553, Norman C. Jacox, gen. mgr.; Jere Overs, Salem, Ore., pres.; Jim Smith, Northern Canada Power Commission, first vice-pres.; Jim Thompson, Tacoma, Wash.; second vice-pres.; Bill McCrorie, Clallam County PUD, Wash., treas.*

SEMO-NEARK MUNICIPAL UTILITIES ASSOCIATION, Box 370, Sikeston, Mo. 63801, 314/471-3328, E.R. Inman, pres.; John H. McDaniel, Paragould, Ark., vice-pres.; Ted Bellars, 194 Court St., Piggott, Ark. 72454, sec.-treas.*

SMALL (NORTHWEST) PREFERENCE AGENCIES, Box 586, Heyburn, Idaho 83336, 208/436-4781, Larry Burbank, Heyburn, Idaho, pres.; Joseph Helgeson, 406/775-5483, Flathead Electric Cooperative, Kalispell, Mont., vice pres.

PUBLIC POWER COUNCIL, 500 W. 8th St., Suite 110, Vancouver, Wash. 98660; 206/694-8593; Robert M. Greening Jr., mgr.; Jere Overs, Salem, Ore., chmn.*

TENNESSEE VALLEY PUBLIC POWER ASSOCIATION, 831 Chestnut St., Chattanooga, Tenn. 37402, 615/756-6511, Jerry L. Campbell, exec. dir.; Don Collette, McMinnville, pres.; William Huddleston, Ft. Loudoun EC, Madisonville, vice pres.; Hubert Williams, Southwest Tenn. EC, Brownsville, sec.-treas.

STATE ASSOCIATIONS

MUNICIPAL ELECTRIC UTILITY ASSOCIATION OF ALABAMA, Box 87, Lafayette, Ala. 36862, 205/864-9812, Edward Yeargan, chmn.; Dale Baker, Sylacauga, vice chmn.; Raimon Thomas, Dothan, sec.-treas.

ARIZONA MUNICIPAL POWER USERS' ASSOCIATION, 2712 N. Seventh St., Phoenix, Ariz. 85006, 602/248-0372, Michael A. Curtis, exec. sec.; Dalton H. Cole, HoHoKam Irri. & Drain. District, pres.; John Suilivan, Salt River Project, vice pres.; Wm. J. Metheny, Electrical District No. 2, sec.; James Guinane, treas.*

CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION, Suite 103, 1213 K St., Sacramento, Cal. 95814, 916/441-1733, Gerald L. Jordan, exec. dir.; Evan L. Griffith, Metropolitan Water District, Los Angeles, pres.; Ernest Geddes, Turlock Irrigation Dist , vice pres.; Harold Guetersloh Jr., San Francisco, treas.; Regina Turner-Murph, Compton, sec.*

NORTHERN CALIFORNIA MUNICIPAL ELECTRIC ASSOCIATION, Drawer H, 2000 Grand St., Alameda, Cal. 94501, 415/522-7411 Maerose J. Evans, Alameda, pres.; Sam Lindley, Redding, treas.

COLORADO ASSOCIATION OF MUNICIPAL UTILITIES, 100 N. Second St., Lamar, Colo. 81052, 303/336-7456, Kevin G. Wailes, Lamar, pres.; Darrell Davis, Center, first vice pres.; David Plumb, Longmont, second vice pres.; Lowrye Hermes, Colorado Springs, sec.-treas.*

* *denotes APPA membership*

CONNECTICUT MUNICIPAL ELECTRIC & GAS ASSOCIATION, Box 190, 100 John St., Wallingford, Conn. 06492, 203/265-1593, Ray Smith, Wallingford, pres.; Wm. Lyons, East Norwalk, sec.*

FLORIDA MUNICIPAL UTILITIES ASSOCIATION, Box 10114, Suite 842, Barnett Bank Bldg., 315 S. Calhoun, Tallahassee, Fla. 32302, 904/224-3314, E.C. Shreve Jr., exec. vice pres.; J. Claude L'Engle, Lake Worth, pres.; J.R. "Buddy" Fort Jr., pres.-elect; Richard L. Hester, Gainesville, vice-pres.; Joe B. Dykes Jr., Tallahassee, sec.-treas.*

ELECTRICITIES OF GEORGIA, 34 Peachtree St., Suite 2300, Atlanta, Ga. 30303, 404/688-0472, Wyman Hughes, LaGrange, chmn.; Joe Solomon, Douglas, vice chmn.*

ILLINOIS MUNICIPAL UTILITIES ASSOCIATION, 522 E. Monroe, Suite 707, Springfield, Ill. 62701; 217/523-3532; Ivan L. Schraeder, exec. dir.; Pat Boyle, St. Charles, pres.; Victor Marma, Naperville, first vice pres.; Burt Sammons, Bushnell, second vice pres.; M. Stephen Finn, Princeton, sec.-treas.*

INDIANA MUNICIPAL ELECTRIC ASSOCIATION Box 283, Tipton, Ind. 46072, 317/675-2334; Paul W. Osler, exec. dir.; Steve Perkins, Rensselaer, pres.; James Bowen, Centerville, vice pres.; James B. Nelson, Lebanon, sec.-treas.*

IOWA ASSOCIATION OF MUNICIPAL UTILITIES, Room 520, Insurance Exchange Bldg., Des Moines, Iowa, 50309, 515/282-0904, Bart Rule, exec. dir.; John Miller, Eldridge, pres.; Robert Colyer, Lamoni, vice pres.; George Williams, Cedar Falls, vice pres.; Don Fahlenkamp, Montezuma, sec.-treas.*

KANSAS MUNICIPAL UTILITIES, INC., Box 1225, McPherson, Kan. 67460, 316/241-1423, Louis Stroup Jr., exec. dir.; Ben Payton, Kingman, pres.; Ron Arnold, Larned, pres.-elect.; Richard Talley, Neodesha, first vice pres.; Melvin Hever, Kansas City, second vice pres.; Henry Crosby, McPherson, sec.-treas.*

KENTUCKY MUNICIPAL ELECTRIC POWER ASSOCIATION, 214 W. Main St., Frankfort, Ky. 40601, 502/223-2063, Lyle D. Cobb, exec. dir.; Walter Smith, Princeton, pres.; Randell Young, Barbourville, vice pres.; Bill Austin, Franklin, sec.-treas.*

MUNICIPAL ELECTRIC ASSOCIATION OF MASSACHUSETTS, 80 Commercial St., Marblehead, Mass. 01945, 617/631-0240, Herve L. Plasse, Chicopee, pres.; Richard O'Neil, Concord, first vice pres.; Mark Kelly, Middleton, second vice pres.; Richard L. Bailey, Marblehead, sec.-treas.*

MICHIGAN MUNICIPAL ELECTRIC ASSOCIATION, 818 Cowley Ave., East Lansing, Mich. 48823, 517/351-6469, S. Don Potter, exec. vice pres.; Dale Simmons, Wyandotte, pres.; Edwin A. Korpi, Escanaba, vice pres.; Clarence G. Pincumbe, Lansing, treas.*

MINNESOTA MUNICIPAL UTILITIES ASSOCIATION, Box 459, 401 E. Highway 55, Buffalo, Minn., 55313-0459, 612/682-4104, Dick Kirkham, exec. dir.; William Radio, Chaska, pres.; Jeffrey Muehler, Breckenridge, first vice pres.; Dallas E. Nelson, Litchfield, second vice pres.; Ray Wigern, Wells, sec.-treas.*

MISSOURI ASSOCIATION OF MUNICIPAL UTILITIES, Box 401, 380 E. High St., Jefferson City, Mo. 65102, 314/635-4526, Wendell Locke, exec. sec.; Bob Carter, Kirkwood, pres.; Paul Jensen, Macon, first vice pres.; Don Lloyd, New Madrid, second vice pres.; Dennie Sheehan, Unionville, sec.-treas.*

NEBRASKA POWER ASSOCIATION, Box 80869, Lincoln, 68501, 402/475-4211, Debbra Hoy, admn. coord.; H. Steve Wacker, pres.; Walter A. Canney, Lincoln, first vice pres.; Glen Schmieding, Beatrice, second vice pres.; John K. McCafferty, Fremont, sec.; Don E. Schaufelberger, treas.

UTILITIES SECTION OF THE NEBRASKA LEAGUE OF MUNICIPALITIES, 1335 L St., Lincoln, Neb. 68508, 402/476-2829, David L. Chambers, director; George Wolverton, asst. in charge of utilities; Dave Redding, Lincoln, pres.*

MUNICIPAL ELECTRIC GENERATION ASSOCIATION (MEGA), Box 900, Farmington, N.M. 87499, 505/327-7701, Dwight D. Arthur, Farmington, sec.

MUNICIPAL ELECTRIC UTILITIES ASSOCIATION OF **NEW YORK STATE**, 119 Washington Ave., Albany, N.Y. 12210, 518/463-0451, Frank Noble, exec. dir.; Wesley G. Ryder, PennYan, pres.; Robert N. Vaisey, Fairport, pres.-elect, James A. Buff, Skaneateles, vice pres.; Patrick J. Hester, Rockville Centre, vice pres.; Betty Aiken, Theresa, sec.; James S. Pullan, Jamestown, treas.; George D. Reich, Plattsburgh, trustee; John W. Gilbert, Boonville, trustee.*

ELECTRICITIES OF NORTH CAROLINA INC., Box 95162, 3117 Poplarwood Court, Raleigh, N.C. 26725, 919/876-9170, Ralph W. Shaw, gen. mgr.; Mayor Kenneth B. Baker, Smithfield, pres.; Richard Thomas, Lexington, first vice pres.; Boyd C. Myers, New Bern, second vice pres.; Douglas O. Bean, Morganton, sec.; T. Bruce Boyette, Wilson, treas. (ElectriCities reorganized as a joint municipal-assistance agency in 1983.)*

NORTH CAROLINA ASSOCIATION OF MUNICIPAL ELECTRIC SYSTEMS, Box 3069, Raleigh, N.C. 27602, 919/834-1311, Dale Herron, Morganton, pres.; Ronnie Dail, Elizabeth City, vice pres.; Linda K. Story, Granite Falls, interim sec.-treas.

NORTH DAKOTA ASSOCIATION OF MUNICIPAL POWER SYSTEMS, Box 240, Valley City, N.D. 58072, 701/845-2210, Truman Wold, Northwood, pres.; Robert Griffin, Valley City, sec.-treas.

AMERICAN MUNICIPAL POWER-OHIO INC. (See listing in joint-action agency section. Ohio Municipal Electric Association merged into American Municipal Power-Ohio in 1983.)*

MUNICIPAL ELECTRIC SYSTEMS OF OKLAHOMA, c/o Oklahoma Municipal League, 201 N.E. 23rd St., Oklahoma City, Okla. 73105, 405/528-7564, Shane Woolbright, ex. dir.; Royce Hunter, Purcell, pres., Louis Garber, Edmond, pres.-elect.; Harvey Massey, Pawhuska, vice pres.; Charles Silvy, Ponca City, sec.-treas.*

LEAGUE OF PUBLICLY OWNED UTILITIES OF OREGON, 1201 Court St. NE, Box 928, Salem, Ore. 97308, 503/588-6466, James A. Swayne, Milton-Freewater, pres.; Brian L. Almquist, Ashland, vice pres.; Doug Sleeth, Forest Grove, sec.-treas.

OREGON PUD ASSOCIATION, Box 621, The Dalles, Ore. 97058, 503/296-2227, Dick Overman, Northern Wasco Co. PUD, pres.; Frank Armstrong, Central Lincoln PUD, vice pres.; Fred Silvey, Northern Wasco Co. PUD, sec.-treas.

PENNSYLVANIA MUNICIPAL ELECTRIC ASSOCIATION, 212 Locust St., Box 1266, Harrisburg 17108, 717/233-5704, William F. Matson, exec. sec.; Edward Olander, Lansdale, pres.; Victor Dickinson, Ephrata, vice pres.; Lee Mangan, Lansdale, sec.; Paul Bradtmiller, Middletown, treas.; Anthony Adonizio, counsel.*

SOUTH CAROLINA ASSOCIATION OF MUNICIPAL POWER SYSTEMS, Box 64, Gaffney, 29340; Terry Hill, Gaffney, pres.; Ken Barnett, Union, vice pres.; Dennis Arrington, Greer, sec.-treas.*

SOUTH DAKOTA MUNICIPAL ELECTRIC ASSOCIATION, 214 E. Capitol, Pierre, S.D. 57501, 605/224-8654, Robert H. Miller, exec. sec.; Pete Swanson, Watertown, pres.; Richard Larson, Madison, vice pres.

TENNESSEE MUNICIPAL ELECTRIC POWER ASSOCIATION, Box 311, 200 Bob Dey Bldg., Peach Court and Wilson Pike Circle, Brentwood, Tenn. 37027, 615/373-5738, T.O. Walker, exec. dir.; R. Michael Browder, Bristol, pres.; Jimmy Barnett, Jackson, vice pres.; Dalton Smith, Clarksville, sec.-treas.* *continued on page D-77*

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TEXAS PUBLIC POWER ASSOCIATION, 8240 Mo Pac Expressway, Suite 295, Austin, 78759, 512/346-3780, R. Michael Simmons, exec. dir.*

UTAH PUBLIC POWER COUNCIL, 5025 S. State St., Murray City, Utah 84107, 801/264-2600, Mayor LaRell D. Muir, Murray City, bd. chmn.; Mayor Brent Haymond, Springville, sec.-treas.; Mayor Newel Baines, Logan, sec.-treas. (formed in October 1983.)

MUNICIPAL ELECTRIC ASSOCIATION OF VERMONT, Box 325, Morrisville, Vt. 05661, 802/626-3366, Kenneth Mason, Lyndonville, pres.; Robert B. Page, Morrisville, sec.-treas.

MUNICIPAL ELECTRIC POWER ASSOCIATION OF VIRGINIA, 311 Ironfronts, 1011 E. Main St., Richmond, Va. 23219 (Box 753, Richmond 23206), 804/649-8471, Christy A. Everson, exec. sec.; Michael J. York, Harrisonburg, pres.; William Willis, Radford, vice pres.*

WASHINGTON PUBLIC UTILITY DISTRICTS' ASSOCIATION, 1700 Tower Bldg., Seattle, Wash. 98101, 206/622-7441, James Boldt, exec. dir.; Lois Powell, Grays Harbor County PUD, pres.; Francis Moore, Benton County PUD, vice pres.; Parker L. Knight, Skamania County PUD, sec.-treas.*

EASTERN WASHINGTON PUD COMMISSIONERS' ASSOCIATION, 1700 Tower Bldg., Seattle, Wash. 98101, 206/622-7441, James Boldt, exec. dir.; Aubrey Hart, Kittitas County PUD, Ellensburg, pres.; Ken Cochrane, Franklin County PUD, Pasco, vice pres.; Jim Martin, Okanogan County PUD, sec.-treas.

WESTERN WASHINGTON PUD COMMISSIONERS' ASSOCIATION, 1700 Tower Bldg., Seattle, Wash. 98101, 206/622-7441, James Boldt, exec. dir.; Jim Hubenthal, Lewis County PUD, Chehalis, pres.; Howard Richman, Cowlitz County PUD, Longview, vice pres.; Matt Dillon, Snohomish County PUD, Everett, sec.-treas.

MUNICIPAL ELECTRIC UTILITIES OF WISCONSIN, 221 - 16th St., So., Wisconsin Rapids, 54494; Russell H. Kurtz, Lake Mills, exec. dir., 414/648-2258; James W. Austin, Menasha, pres.; Charles L. Leuck, Fennimore, first vice pres.; Larry H. Bocock, Whitehall, second vice pres.; Robert O. Stuhlmacher, Wisconsin Rapids, sec.-treas.*

JOINT-ACTION AGENCIES

Alabama

ALABAMA MUNICIPAL ELECTRIC AUTHORITY, 413 E. Laurel Ave., Box 550, 36536; 205/943-5001; Mayor Jim Nix, Foley, chmn.; 9 members: Alexander City, Dothan, Fairhope, Foley, Opelika, Piedmont, Sylacauga, Troy, Tuskegee. (estbl. 1981)*

Arizona

ARIZONA POWER POOLING ASSOCIATION, Box 670, Benson, Ariz. 85602; 602/723-3700; A.J. Faul, Coolidge, pres.; 3 members: Mesa, Electrical District No. 2 of Pinal County, Arizona Electric Power Cooperative.*

California

CENTRAL CALIFORNIA POWER AGENCY, 6201 S. St., Sacramento, Cal. 95813; 916/452-3211; Dallas Raasch, Sacramento, chmn.; 4 members: Sacramento Municipal Utility District, Modesto Irrigation District, Santa Clara, Redding. (estbl. 1981)

M-S-R PUBLIC POWER AGENCY, Box 4060, Modesto, Cal. 95352; 209/578-1212; Archer F. Pugh, Redding, chmn.; Charles S. Viss, Modesto Irrigation District, gen. mgr.; 136 MW of San Juan Generating Station Unit 4, dry steam production at exploratory drilling site in Northern California; 3 members: Modesto Irrigation District, Santa Clara, Redding.

NORTHERN CALIFORNIA POWER AGENCY, 8421 Auburn Blvd., Suite 160, Citrus Heights, Cal. 95610; 916/722-7800; Fredrick F. Eyerly, Palo Alto, chmn.; Robert E. Grimshaw, gen. mgr.; 35 staff; 2,534,469,000 kWh sales; $40 million financing; 110-MW Shell 2 geothermal units; 12 members: Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, Ukiah, Plumas-Sierra Cooperative. (estbl. 1968)*

SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY, 613 E. Broadway, Glendale, Cal. 91205; 213/956-2045; Karl A. Johnson, pres.; Arthur T. Devine, exec. dir.; 5.91 percent (225 MW) of Palo Verde Nuclear Project, southern transmission system of the Intermountain Power Project licensing and feasibility studies in progress for Mead-Phoenix direct current transmission line, interest in Harry Allen Power Plant; 11 members: Anaheim, Azusa, Banning, Burbank, Colton, Glendale, Imperial Irrigation District, Los Angeles, Pasadena, Riverside, Vernon. (estbl. 1980)*

SOUTHERN CALIFORNIA UTILITY POWER POOL, c/o Los Angeles, Cal., Dept. of Water and Power, 111 N. Hope St., Room 1255, Box 111, 90051, 213/481/6003, Raymond C. Burt, Los Angeles, exec. cmmt. chmn.; projected: 7,588 MW (members' total capacity); 4 members: Burbank, Glendale, Los Angeles, Pasadena. (estbl. 1982)

Colorado

ARKANSAS RIVER POWER AUTHORITY, 103 E. Elm, Box 70, Lamar, Colo. 81052; 303/336-3496; George N. Baker, Lamar, pres.; James H. Henderson, gen. mgr.; pur. 98,109,025 kWh; rev. $2,698,627; projected: 80-120 MW coal plant; 7 members: Lamar, Walsenburg, La Junta, Las Animas, Springfield, Trinidad, Colo., and Raton, N.M.*

PLATTE RIVER POWER AUTHORITY, Timberline & Horsetooth Roads, Fort Collins, Colo. 80525, 303/226-4000; Albert J. Hamilton, gen. mgr.; current: 150,000 kW coal, gen. 985 million kWh, pur. 826 million kWh, rev. $55,419,645; 4 members: Estes Park, Fort Collins, Longmont, Loveland. (estbl. 1973)*

Connecticut

CONNECTICUT MUNICIPAL ELECTRIC ENERGY COOPERATIVE, 268 Thomas Rd., Groton, Conn. 06340; 203/446-0620; Maurice R. Scully, exec. dir.; 19 staff; rev. $36,124,324; $67.75 million bonds issued; life-of-unit contracts to 160-MW; 12-MW share of Millstone 3 nuclear unit; Hydro-Quebec intertie participant; 3 members: Groton, Norwich, Jewitt City. (estbl. 1976)*

Delaware

DELAWARE MUNICIPAL ELECTRIC CORP., care of: City of Newark, Box 390, Newark, Del. 19711; 302/366-7070; Harry M. Odren, Smyrna, bd. chmn.; Albert K. Martin, Newark, pres.; 5 members: Clayton, Middletown, Newark, New Castle, Smyrna. (estbl. 1979)

Florida

FLORIDA MUNICIPAL POWER AGENCY, 7200 Lake Ellenor Drive, Suite 154, Orlando, Fla. 32809; 305/859-7310; Barbara Bidwell, New Smyrna Beach, chmn.; Calvin R. Henze, gen. mgr.; 6 staff; projected: 70-MW share in 802-MW St. Lucie No. 2 nuclear unit, 146-MW share in 405-MW Stanton coal unit, 200-MW share in 600-MW Seminole coal unit 2; $290 million loans; 26 members: Alachua, Bartow, Blountstown, Bushnell, Clewiston, Fort Meade, Fort Pierce, Gainesville, Green Cove Springs, Homestead, Jacksonville Beach, Key West, Kissimmee, Lake Worth, Leesburg, Mount Dora, Newberry, New Smyrna Beach, Ocala, Quincy, St. Cloud, Sebring, Starke, Tallahassee, Wauchula, Vero Beach. (estbl. 1978)*

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Georgia

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA, 1470 Riveredge Pkwy., Atlanta, Ga. 30328; 404/952-5445; Gayle Manley, Albany, chmn.; Donald L. Stokley, gen. mgr.; 60 staff; current: 272 MW of 1,538-MW Hatch nuclear plant, 244 MW of 808-MW Scherer coal plant unit 2, 265 MW of 1,758-MW Wansley coal plant, purchase 2.4 billion kWh from Georgia Power Co.; 4.27 billion kWh sales; $1.5 billion financing; projected: 408 MW of 2,300-MW Vogtle nuclear plant; 47 members: Adel, Albany, Barnesville, Blakely, Brinson, Buford, Cairo, Calhoun, Camilla, Cartersville, College Park, Commerce, Covington, Crisp County, Doerun, Douglas, East Point, Elbertson, Ellaville, Fairburn, Fitzgerald, Forsyth, Fort Valley, Grantville, Griffin, Hogansville, Jackson, LaFayette, LaGrange, Lawrenceville, Mansfield, Marietta, Monroe, Monticello, Moultrie, Newnan, Norcross, Palmetto, Quitman, Sandersville, Sylvania, Sylvester, Thomaston, Thomasville, Washington, West Point, Whigham. (estbl. 1975)*

Indiana

INDIANA MUNICIPAL POWER AGENCY, 5920 Castleway West Dr., Box 50700, Indianapolis, Ind. 46250; 317/849-3242; Frank Rudolph, bd. chmn.; Jesse Tilton, gen. mgr.; 25 percent (156 MW) participation in Gibson No. 5 unit; 25 members: Anderson, Bargersville, Centerville, Columbia City, Crawfordsville, Darlington, Flora, Frankfort, Frankton, Greenfield, Greendale, Jamestown, Lawrenceburg, Lebanon, Middletown, Paoli, Pendleton, Peru, Rensselaer, Richmond, Rising Sun, Scottsburg, Tipton, Washington. (estbl. 1980)*

Iowa

NORTH IOWA MUNICIPAL ELECTRIC COOPERATIVE ASSOCIATION, Box 445, Hwy. 169 and 5th Ave. N., Humboldt, Iowa 50548; 515/332-2981; Richard A. Johnson, Humboldt, exec. vice pres.; Ronald L. Deiber, Alta, pres.; coordination of members regarding purchase/sale of power, load forecasting, future supply sources, monthly power billings; 16 members: Algona, Alta, Bancroft, Cedar Falls, Coon Rapids, Forest City, Graettinger, Grundy Center, Laurens, Milford, New Hampton, Spencer, Sumner, Waverly, Webster City, West Bend. (estbl. 1965)*

SOUTH IOWA MUNICIPAL ELECTRIC COOPERATIVE, 321 N. First St., Winterset, Iowa 50273; 515/462-2454, -2152, George C. Berry, Winterset, pres.; projected: purchase 50 MW of 650-MW Guthrie County (Iowa) coal unit; 19 members: Brooklyn, Cascade, Corning, Earlville, Fontanelle, Gowrie, Grand Junction, Greenfield, Indianola, Independence, Lamoni, La Porte, Lenox, Ogden, Preston, State Center, Stuart, Villisca, Winterset. (estbl. 1967)

MISSOURI BASIN MUNICIPAL ELECTRIC COOPERATIVE ASSOCIATION, 125 Central Ave., S.E., Orange City, Iowa 51041; 712/737-4885; Allen Roos, Orange City, pres.; Harold Schiebout, Sioux Center, vice pres.; Dean E. Meyer, Harley, sec.-treas.; owns 40 MW transmission capacity through Northwest Iowa Power Cooperative distribution system; 18 members: Alton, Denison, Fontanelle, Hartley, Hawarden, Kimballton, Lake Park, Manilla, Orange City, Paullina, Primghar, Remsen, Rock Rapids, Sanborn, Shelby, Sioux Center, Wall Lake, Woodbine. (estbl. 1978)

WESTERN IOWA MUNICIPAL ELECTRIC COOPERATIVE ASSOCIATION, 223 Main St., Manning, Iowa 51455; 712/653-3214; Orville Fink, Manning, pres.; Donald Krause, Hinton, vice pres.; 17 MW of Neal 4 coal-fired plant; 6 members: Anthon, Aurelia, Hinton, Manning, Mapleton, Onawa. (estbl. 1973)

Kansas

KANSAS MUNICIPAL ENERGY AGENCY, Box 388, 6950 Squibb Rd., Suite 414, Mission, Kan. 66202; 913/677-2885; John Elder, Winfield, pres.; Gilbert E. Hanson Jr., gen. mgr.; 4 staff; 37.5-MW life-of-unit share of Nearman coal plant, 4 MW of Holcomb coal plant, interconnection of 6 members into the grid; 27 members: Augusta, Baldwin City, Burlington, Chanute, Clay Center, Colby, Ellis, Erie, Fredonia, Greensburg, Herington, Hoisington, Iola, Larned, Mulvane, Neodesha, Norton, Oberlin, Osawatomie, Ottawa, Pratt, St. Francis, Sharon Springs, Sterling, Washington, Wellington, Winfield. (estbl. 1978)*

Louisiana

LOUISIANA ENERGY AND POWER AUTHORITY, 315 Johnson St., Lafayette, La. 70501; 318/269-4046; Mayor Edward ("Bubba") Lyons, Houma, chmn.; Sylvan Richard, mgr.; 3 staff; 20 percent share in 530-MW coal-fired Rodemacher No. 2 unit, power supplier for members via purchase of members' power and sell-back of lowest-cost power; projected: may add to supply with waste heat and Louisiana lignite; 9 members: Alexandria, Houma, Jonesville, New Roads, Winnfield, Morgan City, Lafayette, Plaquemine, Rayne. (estbl. 1980)*

Maine

DIRIGO ELECTRIC COOPERATIVE, 2 Central Plaza, Augusta, Maine 04330; 207/622-4406; Robert Miller, Lubec, pres.; Gordon Weil, gen. mgr.; 8 members: Houlton, Madison, Kennebunk, Lubec, Eastern Maine Electric Cooperative, Fox Island Electric Cooperative, Union River Electric Cooperative, Van Buren. (estbl. 1978)

Massachusetts

MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC CO., Stony Brook Energy Center, Box 426, Ludlow, Mass. 01056; 413/589-0141; Horst Hummer, Hudson, chmn.; Richard K. Byrne, gen. mgr.; $1.1 billion financing; Stony Brook 334-MW intermediate generating unit and 170-MW peaking unit; 34 members: Ashburnham, Belmont, Boylston, Braintree, Chicopee, Concord, Danvers, Georgetown, Groton, Hingham, Holden, Holyoke, Hudson, Hull, Ipswich, Littleton, Mansfield, Marblehead, Merrimac, Middleborough, Middleton, North Attleborough, Paxton, Peabody, Princeton, Reading, Rowley, Shrewsbury, South Hadley, Sterling, Templeton, Wakefield, West Boylston, Westfield. (estbl. 1976)*

Michigan

MICHIGAN PUBLIC POWER AGENCY, 2120 44th St. S.E., Kentwood, Mich. 49508; 616/455-1460; Earl F. Brush, Lansing, chmn.; Richard I. Gorman, gen. mgr.; 4 staff; current: 38-MW share of 770-MW Campbell No. 3 coal unit; projected: 242.65-MW share of 652-MW Belle River No. 1 coal unit with July 1984 starting date; gen. 224 million kWh; pur. 29 million kWh; rev. $11,520,496; 18 members: Bay City, Charlevoix, Chelsea, Croswell, Grand Haven, Harbor Springs, Hart, Holland, Lansing, Lowell, Niles, Paw Paw, Petoskey, Portland, St. Louis, Sebewaing, Traverse City, Zeeland. (estbl. 1978)*

MICHIGAN SOUTH CENTRAL POWER AGENCY, Box 62, 720 Herring Road, Litchfield, Mich. 49252; 517/542-2346; James R. Endicott, Coldwater, chmn. and commissioner; 47 staff; 55-MW coal plant; 5 members: Clinton, Coldwater, Hillsdale, Marshall, Union City. (estbl. 1979)*

Minnesota

NORTHEASTERN MINNESOTA MUNICIPAL POWER AGENCY, Box 249, 19th St. and 6th Ave., Hibbing, Minn. 55746; 218/263-7515; Norman Schroder, Staples, chmn.; David C. Strafaccia, pres.; 12 members: Aitkin, Biwakik, Buhl, Ely, Gilbert, Grand Rapids, Hibbing, Keewatin, Mountain Iron, Nashwauk, Staples, Virginia.

NORTHERN MUNICIPAL POWER AGENCY, Box 528, Thief River Falls, Minn. 56701; 218/681-5816, -2943; John T. Anderson, Thief River Falls, pres./gen. mgr.; 30 percent share of 414.6 MW Coyote lignite plant, full requirements power supplier for 12 cities; $268 million financing; 12 members: Bagley, Baudette, Fosston, Halstad, Hawley, Roseau, Stephen, Thief River Falls, Warren, Warroad, Minn.; Grafton, Park River, N.D.

SOUTHERN MINNESOTA MUNICIPAL POWER AGENCY, 21 First St. S.W., Suite 400, Rochester, Minn. 55902; 507/285-0478; Donald E. Meyer, New

Prague, pres.; Pierre J. Heroux, exec. dir.; $257 million in bonds; current: 300-MW share in (800-MW) Sherco 3 plant, $61.8 million contract with Cooperative Power Association for interim power, $21 million contract for interim power with Dairyland Power Cooperative, shared transmission agreements with Northern States Power Co., Dairyland Power Cooperative, Interstate Power Co.; 16 members: Austin, Blooming Prairie, Fairmont, Lake City, New Prague, New Ulm, Owatonna, Preston, Redwood Falls, Rochester, Spring Valley, St. Peter, Truman, Waseca, Wells, Windom.*

UNITED MINNESOTA MUNICIPAL POWER AGENCY, Box 521, 421 W. Third St., Litchfield, Minn. 55355; 612/693-3277; Dallas Nelson, Litchfield, pres.; current: 28-MW share in 800-MW Sherco 3 plant; 5 members: Grand Marais, Litchfield, Mora, North Branch, Princeton.

WESTERN MINNESOTA MUNICIPAL POWER AGENCY, 212 Second St. N.W., Ortonville, Minn. 56278; 612/839-2549; Russell F. Berg, Wadena, pres.; Russell Dau, gen. mgr.; staffed by Missouri Basin Municipal Power Agency; 272-MW share of 1,650-MW Missouri Basin Power Project; 19 members: Adrian, Alexandria, Barnesville, Benson, Detroit Lakes, Elbow Lake, Henning, Jackson, Lakefield, Lake Park, Luverne, Madison, Moorhead, Ortonville, St. James, Wadena, Westbrook, Windom, Worthington. (estbl. 1976)

Mississippi

MUNICIPAL ENERGY AGENCY OF MISSISSIPPI, c/o Greenwood Utilities, Box 866, Greenwood, Miss. 38930; 601/453-4761; Richard M. Webster Jr., Clarksdale, chmn.; Joseph Fackrell, gen. mgr.; 8 members: Canton, Clarksdale, Durant, Greenwood, Itta Bena, Kosciusko, Leland, Yazoo. (estbl. 1978)*

Missouri

MISSOURI JOINT MUNICIPAL ELECTRIC UTILITY COMMISSION, 310 Tiger Lane, Columbia, Mo. 65102; 314/445-3279; Richard Malon, Columbia, chmn.; Bob Barnett, mgr. eng. & oper.; 30 members: Campbell, Cameron, Carthage, Chillicothe, Columbia, Fredericktown, Fulton, Gallatin, Hannibal, Hermann, Higginsville, Kirkwood, Independence, Lamar, Macon, Malden, Marshall, New Madrid, Poplar Bluff, Richland, Rolla, Salisbury, Sikeston, Slater, Springfield, Trenton, Unionville, Vandalia, Waynesville, West Plains. (estbl. 1980)*

Nebraska

NEBRASKA MUNICIPAL POWER POOL, Box 95124, 1335 L St., Lincoln, Neb. 68509; 402/474-4759; Robert E. Arraj, Kimball, pres.; H. Steve Wacker, gen. mgr.; 18 staff; 72 members: Alliance, Ansley, Arnold, Auburn, Bayard, Beatrice, Beaver City, Benkelman, Blue Hill, Bridgeport, Broken Bow, Burwell, Callaway, Cambridge, Central City, Chappell, Crete, Curtis, David City, Fairbury, Falls City, Franklin, Fremont, Gering, Grand Island, Grant, Hastings, Hebron, Hickman, Holdrege, Imperial Public Power District, Kimball, Lexington, Lincoln, Lodgepole, Lyman, Lyons, Mitchell, Morrill, Mullen, Nebraska City, Neligh, North Platte, Oxford, Paxton, Pender, Plainview, Red Cloud, Sargent, Seward, Shickley, Sidney, South Sioux City, Stromsburg, Stuart, Superior, Sutton, Syracuse, Tecumseh, Valentine, Wahoo, West Point, Wilber, Wilcox, Wisner, Wood River, Neb.; Fleming, Haxtun, Holyoke, Lyons, Wray, Neb., and Yuma, Colo. (estbl. 1975)*

MUNICIPAL ENERGY AGENCY OF NEBRASKA (Nebraska Municipal Power Pool is operating agent), Box 95124, 1335 L St., Lincoln, Neb. 68509; 402/474-4759; Robert Stull, Gering, chmn.; H. Steve Wacker, exec. dir. and sec.-treas.; 18 staff; current: 30-MW share of Nebraska City No. 1 coal unit, 10-MW share of Laramie River Coal Station, 5-MW share of Hastings Energy Center Unit 1; gen. 56,000 kWh (includes members' capacity used by MEAN); sales 389,618,000 kWh; $15 million financing issued March 1983; 20 members: Alliance, Bayard, Beaver City, Blue Hill, Burwell, Chapell, Curtis, Fairbury, Gering, Kimball, Lyman, Mitchell, Morrill, Mullen, Oxford, Pender, Red Cloud, Stuart, Wahoo, West Point. (estbl. 1981)

North Carolina

NORTH CAROLINA MUNICIPAL POWER AGENCY NUMBER 1, Box 95162, 3117 Poplarwood Court, Raleigh, N.C. 27625; 919/876-9170; Mayor George Clay Jr., Shelby, chmn.; Ralph W. Shaw, gen. mgr.; $1.375 billion financing; 75 percent (859-MW) share of Catawba Nuclear Station Unit 2, 37.5 percent of its support facilities; 19 participants: Albemarle, Bostic, Cherryville, Cornelius, Drexel, Gastonia, Granite Falls, High Point, Huntersville, Landis, Lexington, Lincolnton, Maiden, Monroe, Morgantown, Newton, Pineville, Shelby, Statesville and one member: Concord. (estbl. 1976)*

NORTH CAROLINA EASTERN MUNICIPAL POWER AGENCY, Box 95162, 3117 Poplarwood Court, Raleigh, N.C. 27625; 919/876-9170; Simon C. Sitterson Jr., Kinston, chmn.; Ralph W. Shaw, gen. mgr.; $1.3 billion financing; projected: undivided ownership interests, from 13 to 18 percent, in Brunswick Nuclear Station, Roxboro Plant, Mayo Plant, Shearon Harris Nuclear Plant; 32 participants: Apex, Ayden, Belhaven, Benson, Clayton, Edenton, Elizabeth City, Farmville, Fremont, Greenville, Hamilton, Hertford, Hobgood, Hookerton, Kinston, La Grange, Laurinburg, Louisburg, Lumberton, New Bern, Pikeville, Red Springs, Robersonville, Rocky Mount, Selma, Scotland Neck, Smithfield, Southport, Tarboro, Wake Forest, Washington, Wilson.*

North Dakota

NORTH DAKOTA MUNICIPAL POWER AGENCY, Northwood, N.D. 58267; 701/587-5581; Truman Wold, Northwood, pres.; 6 members: Cavalier, Hillsboro, Hope, Lakota, Northwood, Valley City. (estbl. 1977)

Ohio

AMERICAN MUNICIPAL POWER-OHIO (AMP-OH) (merged with Ohio Municipal Electric Association in 1983), 1001 Eastwind, Suite 109, Westerville, Ohio 43081; 614/890-2805; Richard H. Gorsuch, pres.; Kenneth Hegemann, St. Marys, chmn.; bulk power supplier for 40 members; 62 members are Amherst, Arcadia, Beach City, Blanchester, Bloomdale, Bowling Green, Bradner, Brewster, Bryan, Celina, Cleveland, Columbiana, Columbus, Cuyahoga Falls, Cygnet, Deshler, Dover, Edgerton, Elmore, Galion, Genoa, Georgetown, Grafton, Hamilton, Hubbard, Hudson, Jackson, Jackson Center, Lebanon, Lodi, Lucas, Mendon, Milan, Minster, Monroeville, Montpelier, Napoleon, New Bremen, Newton Falls, Niles, Oak Harbor, Oberlin, Orrville, Pemberville, Pioneer, Piqua, Plymouth, Prospect, Seville, Shelby, South Vienna, St. Clairsville, St. Marys, Sycamore, Tipp City, Versailles, Wadsworth, Wapakoneta, Wellington, Westerville, Woodville, Yellow Springs. (estbl. 1972)

Oklahoma

OKLAHOMA MUNICIPAL POWER AUTHORITY, 429 N.E. 50th, Suite 302, Oklahoma City, Okla. 73105; 405/524-1666; Michael D. Brown, chmn.; Harry Dawson, gen. mgr.; 37 members: Altus, Anadarko, Blackwell, Claremore, Comanche, Cushing, Duncan, Edmond, Eldorado, Fairview, Frederick, Granite, Hominy, Lexington, Lindsay, Mangum, Marlow, Newkirk, Okeene, Olustee, Pawhuska, Pawnee, Perry, Ponca City, Pond Creek, Prague, Pryor, Purcell, Ryan, Stillwater, Stroud, Tecumseh, Walters, Watonga, Waynoka, Wynnewood, Yale. (estbl. 1981)*

South Carolina

PIEDMONT MUNICIPAL POWER AGENCY, Box 64, Gaffney, S.C. 29342; 803/489-8181; Jack E. Millwood, Gaffney, chmn.; H.F. Crater Jr., int. mgr. (803/487-7171); projected: 25 percent (369-MW) ownership in Catawba Nuclear

Unit 2; 10 members: Abbeville, Clinton, Easley, Gaffney, Greer, Laurens, Newberry, Rock Hill, Union, Westminster. (estbl. 1979)

South Dakota

HEARTLAND CONSUMERS POWER DISTRICT, Box 248, Madison, S.D. 57052; 605/256-6536; Ellwood Paulsen, Centerville, pres.; Wendell J. Garwood, gen. mgr.; 8 staff; 50-MW share of 1,650-MW Laramie River Coal Station; 21 members: Arlington, Aurora, Colman, Estelline, Groton, Hecla, Howard, McLaughlin, Madison, Parker, Plankinton, South Dakota State University-Brookings, University of South Dakota-Vermillion, State Training School-Plankinton, Tyndall, Volga, Wessington Springs, White, S.D.; Akron, Iowa; Marshall, Tyler, Minn. (estbl. 1969)*

MISSOURI BASIN MUNICIPAL POWER AGENCY, Box 84610, Sioux Falls, S.D. 57188-4610; 605/338-4042; Earl La Maack, Alexandria, Minn., pres.; Russell Dau, gen. mgr.; 26 staff; gen. 332,000 kW (272,000 kW coal, 60,000 kW oil-fired); 751 million kWh; rev. $21,684,000; 54 members: Alton, Denison, Fontanelle, Hartley, Hawarden, Kimballton, Lake Park, Manilla, Orange City, Paullina, Primghar, Remsen, Rock Rapids, Sanborn, Shelby, Sioux Center, Wall Lake, Woodbine, Iowa; Adrian, Alexandria, Barnesville, Benson, Detroit Lakes, Elbow Lake, Henning, Jackson, Lake Park, Lakefield, Luverne, Madison, Moorhead, Ortonville, St. James, Sauk Centre, Staples, Wadena, Westbrook, Worthington, Minn.; Beresford, Big Stone City, Brookings, Burke, Faith, Flandreau, Fort Pierre, Pierre, Vermillion, Winner, Watertown, S.D.; Cavalier, Hillsboro, Lakota, Northwood, Valley City, N.D. (estbl. 1977)*

SOUTH DAKOTA MUNICIPAL POWER AGENCY, 305 W. Russell, Sioux Falls, S.D. 57107; 605/224-7341; Dave Padgett, Pierre, pres.; issued bonds for Missouri Basin Municipal Power Agency office building; substation for Fort Pierre; 11 members: Beresford, Big Stone City, Brookings, Burke, Faith, Flandreau, Fort Pierre, Pierre, Vermillion, Watertown, Winner. (estbl. 1979)

Texas

SAM RAYBURN MUNICIPAL POWER AGENCY, 303 North Jackson, Livingston, Texas 77351; 409/327-5303; Wayne DuBose, Jasper, pres.; Robert D. Willis, exec. dir.; $157.25 million financing; projected: 108-MW share in 540-MW Nelson No. 6 coal unit (May 1982), 57-MW hydro project, option to participate in future Gulf States Co. projects; gen. 17,000 kW hydro; gen. 125,006,667 kWh; pur. 247,842,800 kWh; rev. $16,449,354; 4 members: Jasper, Liberty, Livingston, Texas, and Vinton, La. (estbl. 1979)*

TEXAS MUNICIPAL POWER AGENCY, Box 7000, Bryan, Texas 77805; 409/873-2013; Avon Acker, pres.; Ed Wagoner, gen. mgr.; 264 staff; projected: 6.2 percent share of 2,300-MW Comanche Peak nuclear units; 400-MW lignite-fired Gibbons Creek Steam Electric Station (1983), transmission facilities; 4 members: Bryan, Denton, Garland, Greenville.*

Utah

INTERMOUNTAIN POWER AGENCY, 5250 S. 300 West, Suite 101, Murray, Utah 84107; 801/262-8807; Reece D. Nielsen, chmn.; Ronald Rencher, gen. mgr.; current; transmission lines: one 500-kV direct current line, two 345-kV and one 230-kV ac lines, 1,500-MW coal-fired Intermountain Power Project under construction (two units to be completed in 1986 and 1987); 29 municipal members: Anaheim, Burbank, Glendale, Los Angeles, Pasadena, Riverside, Cal.; Beaver City, Bountiful, Enterprise, Ephraim, Fairview, Fillmore City, Heber, Holden, Hurricane, Hyrum, Kanosh, Kaysville, Lehi, Logan, Meadow, Monroe, Morgan, Mount Pleasant, Murray, Oak City, Parowan, Price, Spring City, Utah. (Six cooperatives and one private utility are also participants in Intermountain Power Project) (estbl. 1974)*

UTAH ASSOCIATED MUNICIPAL POWER SYSTEMS, 8722 South 300 West, Sandy, Utah 84091; 801/566-3933; Carolyn S. McNeil, gen. mgr.; gen. 651,715,000 kWh; current: owns 14.6 percent of Hunter 2 coal-fired, steam generating plant; projected: purchase share of the Utah Power & Light Co. plant now held by Deseret G&T; 21 members: Beaver City, Enterprise, Ephraim, Fairview, Fillmore City, Heber Light & Power Co., Holden, Hurricane, Hyrum, Kanosh, Kaysville, Lehi City, Logan, Meadow, Monroe, Morgan, Mount Pleasant, Murray, Oak City, Parowan, Spring City. (estbl. 1980)*

Vermont

VERMONT PUBLIC POWER SUPPLY AUTHORITY, 512 St. George Rd., Box 425, Williston, Vt. 05495; 802/878-5274; Orman E. Croft, Swanton, chmn.; Fred W. Gross, interim gen. mgr.; 10 staff; 11 members: Burlington, Enosburg Falls, Hardwick, Ludlow, Lyndonville, Morrisville, Northfield, Springfield, Stowe, Swanton, Washington Electric Cooperative. (estbl. 1979)*

Washington

CENTRAL WASHINGTON POWER AGENCY, 1400 E. Vantage Hwy., Ellensburg, Wash. 98926; 509/925-3164; Harold W. Jenkins, Ellensburg, and E. Roy Mundy, Ephrata, dirs.; 2 members: Grant County and Kittitas County public utility districts. (estbl. 1962)

CLARK-COWLITZ JOINT-OPERATING AGENCY, Box 1279, Longview, Wash. 98632; 206/423-2210; Paul Runyan, Clark County PUD, dir.; Joe Hill, Cowlitz County PUD, dir.; projected: attempting to acquire 134-MW Merwin Dam hydro plant; 2 members: Clark County PUD, Cowlitz County PUD.

CLARK-SKAMANIA JOINT-OPERATING AGENCY, Box 500, Carson, Wash. 98610; 509/427-5126; Carl L. Nielsen, Skamania County PUD, pres.; Paul Runyan, Clark County PUD, vice pres.-sec.; projected: studying feasibility of constructing 54-MW Little White Salmon Dam hydro plant; 2 members: Clark County PUD, Skamania County PUD.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM, Box 968, Richland, Wash. 99352-0968; 509/372-5000; Carl Halvorson, Portland, Ore., chmn.; Donald W. Mazur, managing dir.; gen. 887,500 kW (860,000 kW nuclear, 27,000 kW hydro); projected: 1,100 MW nuclear from WPPSS project 2; rev. $44,810,000; 23 members: cities of Ellenburg, Richland, Seattle, Tacoma, and public utility districts of following counties —Benton, Chelan, Clallam, Clark, Cowlitz, Douglas, Ferry, Franklin, Grant, Grays Harbor, Kittitas, Klickitat, Lewis, Mason, Okanogan, Pacific, Skamania, Snohomish, Wahkiakim. (Participants in the WPPSS nuclear plants include 32 municipalities, 26 PUDs, 52 cooperatives and 5 investor-owned utilities.) (estbl. 1957)*

Wisconsin

WESTERN WISCONSIN MUNICIPAL POWER GROUP, 860 Lincoln Ave., Fennimore, Wis. 53809; 608/822-6501; Charles J. Leuck, Fennimore, pres.; 9 members: Arcadia, Argyle, Cashton, Cumberland, Elroy, Fennimore, Merrillan, New Lisbon, Viola. (estbl. 1976)

WISCONSIN PUBLIC POWER INC. SYSTEM, Box 44, Sun Prairie, Wis. 53590; 608/837-2653; Ernest J. Mullen, pres.; David W. Penn, gen. mgr.; 5 staff; pur. 1.6 billion kWh; 26 members: Algoma, Black River Falls, Boscobel, Cedarburg, Cuba City, Deerfield, Eagle River, Elkhorn, Florence, Hartford, Jefferson, Kaukauna, Kiel, Lake Mills, Menasha, Muscoda, New Holstein, New London, New Richmond, Oconomowoc, River Falls, Slinger, Sturgeon Bay, Two Rivers, Waterloo, Waunakee, Waupun, Westby, Whitehall.*

Wyoming

WYOMING MUNICIPAL POWER AGENCY, Box 900, Lusk, Wyo. 82225; 307/334-2170; John Harrison, Pine Bluffs, chmn.; Larry LaMaack, exec. dir.; 4 staff; 16.5-MW share of 1,650-MW coal-fired Missouri Basin Power Project, purchases power from Western Area Power Administration, transmission services from WAPA; gen. 34.3 million kWh; pur. 69.4 million kWh; rev. $3,469,838; 7 members: Cody, Fort Laramie, Guernsey, Lingle, Lusk, Pine Bluffs, Wheatland.*

APPA Electric Cooperative Members

TRI-STATE GEN. & TRANS. ASSN.
Box 33695
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Daniel E. MacLeod, actg. gen. mgr.

LEE COUNTY ELECTRIC COOPERATIVE
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James D. Sherfey, gen. mgr.

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SOYLAND POWER COOPERATIVE INC.
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Richard R. Ruzich, gen. mgr.

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Raymond Cristell, gen. mgr.

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James L. Grahl, gen. mgr.

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Gary Williamson, gen. mgr.

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(Affiliate Member)
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William F. Matson, exec. vice pres.

EAST RIVER ELECTRIC POWER COOPERATIVE
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Loren Zingmark, gen. mgr.

GARKANE POWER ASSOCIATION INC.
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Glen P. Willardson, gen. mgr.

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William J. Gallagher, exec. mgr.

WASHINGTON ELECTRIC COOPERATIVE INC.
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Robert Toombs, mgr.

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DEAN WITTER REYNOLDS INC.
130 Liberty St.
New York, N.Y. 10006

DEBEVOISE & PLIMPTON
875 Third Ave.
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DILLON, READ & CO. INC.
535 Madison Ave.
New York, N.Y. 10022

DONALDSON LUFKIN & JENRETTE
140 Broadway - 49th Floor
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DONOVAN LEISURE NEWTON & IRVINE
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DUNCAN, WEINBERG & MILLER, PC
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EBASCO SERVICES INC.
Two World Trade Center
New York, N.Y. 10048

THE FIRST BOSTON CORP.
Park Ave. Plaza 39th Floor
New York, N.Y. 10055

GENERAL ELECTRIC CO.
1100 Western Ave.
Lynn, Mass. 01910

GILBERT COMMONWEALTH
209 East Washington Ave.
Jackson, Mich. 49201

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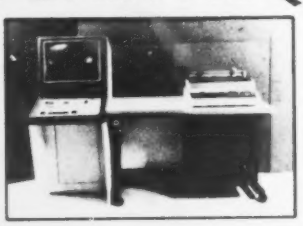

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- A full range of Master Station designs available in single or dual configurations. Includes the Tejas MS2300, DEC 11/23+, 11/44 and VAX/VMS.
- The modular, programmable Tejas CAM/DAC, Micro and Micro/1 Remote Terminal Units that can emulate other message protocols.
- Applications programs tailored to meet your specific requirement. Some of these are: Integrated Load Management, Power Factor Control, Distribution System Analysis, Load Control, Outage Reporting and various engineering programs.
- A capable, knowledgeable staff that sees you through the project and beyond. Our Engineering, Manufacturing, Program Management, QA, Training/Documentation and Field Service groups bring years of expertise to their areas.

All of these proven capabilities combine to assure a successful project — one that is specification responsive and delivered on time. Tejas Controls would be pleased to work with you on your next project.

TEJAS CONTROLS, INC.

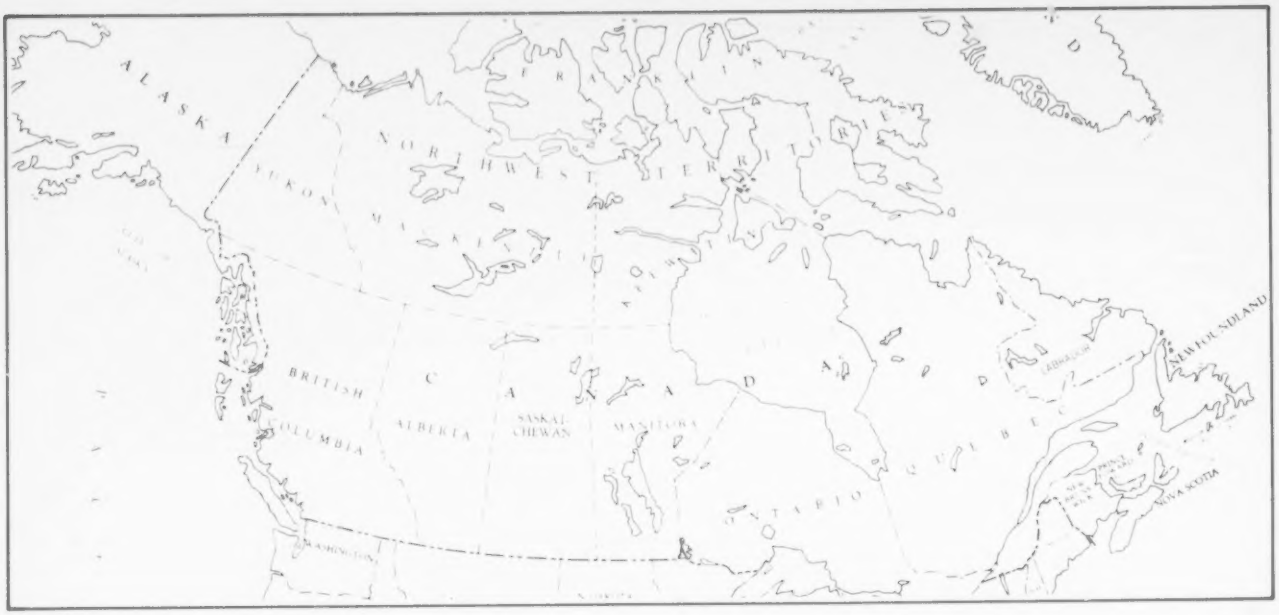
CABLE COMMUNICATION SYSTEMS

Publicly owned cable communication systems in cities or towns served by local publicly owned electric utilities are underlined. When two numbers are listed under "Channels" the first is the number in use and the second is the number available.

Cable System by State	*Person in charge Phone*	*Year Started*	*Subscribers*	*Channels*	*Basic Monthly Rate*	*Utility Use*	*Structure*	*Financing*
ALABAMA								
Riviera Utilities 413 East Laurel Ave. Box 550 Foley 36536	H. Sewell St. John Jr. 205/943-5001	1982	1,126	18-36	$10.50	No	Separate function of utilities board	Retained earnings of utilities board
Lincoln Cable TV Box 172 Lincoln 35096	C.L. Watson 205/763-7777	1983	550	12	10.00	No	Separate department	City loan
Opp Cablevision Box 311 Opp 36467	Charles McGowan 205/493-4571	1967	2,800	10	6.00	No	Under utility department	City operating revenues
ARKANSAS								
Conway Corporation Box 99 Conway 72032	James H. Brewer 501/329-5641	1980	4,740	19	7.50	Load control, metering	Owned by city and leased to municipal Conway Corp.	Loan from utility department
CALIFORNIA								
San Bruno Municipal Cable TV 567 El Camino Real San Bruno 94066	David A. Thomas 415/877-8889	1971	8,000	26	7.25	No	Separate department	
COLORADO								
Center Municipal Cable System Box 400 Center 81125	Darrell T. Davis 303/754-3497	1984 planned	300	18	7.00	Load control	Electric department will build and operate energy management portion of system and lease entertainment portion to separate city entity.	Utility reserve fund
Copper Mountain Metropolitan District Cable TV Box 3195 Copper Mountain 80443	Ray Bishop 303/968-2882 ext. 6440	1976	730	10	15.00	No (investigating)	Metropolitan District (similar to city government)	General obligation bonds
FLORIDA								
City of Newberry City Hall Newberry 32669	Layne Rooks 904/472-2161	1974	525	12	6.00	No	Part of utility department	Utility's general fund
Valparaiso Communications System Box 296 44 Southview Ave. Valparaiso 32580	Thomas Miller 904/678-2922	1976	1,284	27	7.00		City agency providing: burglar, fire, assault alarm; well-monitoring; phase reversal; capacitor switching for Gulf Power Co.	
GEORGIA								
City of Covington CATV Covington 30209	Frank Turner 404/786-5324	1980	2,700	21-35	7.95	Air-conditioning load management planned	Separate cable department	City's general fund
City of Monroe Box 725 Monroe 30655	John T. Briscoe Jr. 404/267-5756	1972	2,936	36	4.00	Air-conditioning load management	Under utility department	Utility's general fund and local bank

Cable System by State	Person in charge Phone	Year Started	Subscribers	Channels	Basic Monthly Rate	Utility Use	Structure	Financing
ILLINOIS								
City of Madison Box 87 Madison 62060	Mike Macek 618/877-4854	1984 planned	1,000 (est.)	No TV		Burglary, fire and emergency services	Separate alarm and cable department	City's general fund
IOWA								
Coon Rapids Cable System 123 Third Avenue Box 207 Coon Rapids 50058	Eugene P. Smith 712/684-2225	1982	300	16	$9.50	Investigating for load mgmt., SCADA & communications	Operated by utility; separate board for policy	Utility reserve funds
Hartley Municipal Cable System 169 South Central Ave. Hartley 51346	Dean Meyer 712/728-2240	1983	470	18	9.00	Maybe load management	Separate department	Loan from surplus electric funds
Manning Municipal Cable Board 719 Third St. Manning 51455	Gerald Beck 712/653-3214	1982	455	20-30	9.50	Load management in 1984.	Operated by separate board	Electric revenue bonds for load management; gas department surplus for the rest
Primghar Municipal Cable TV 741 16th St. Primghar 51245	Robert Mulder 712/757-2435	1981	275	21-36	8.50	No	Part of utility department	General obligation bonds
Community Cable Television Corporation City of Sanborn Sanborn 51248	Allen Bonderman 712/729-3974	1981	320	23-36	8.50	Load management/ air conditioners and water heaters	Corporation controlled by city	Utility funds and corporation revenue bonds
KANSAS								
Americus City CATV Americus 66835	Mike Wooderson 316/884-5655	1976	252	9	12.00	No	Separate cable department	Revenue bonds
Arma Cablevision City of Arma Box 829 Arma 66712	Mavis Masterson 316/347-4125	1981	378	13-14	8.50	No	Separate cable department	Cable revenue bonds
Baxter Cable Vision City of Baxter Springs Box 577 Baxter Springs 66713	Don Henry 316/856-2114	1980	1,600	11	8.50	No (weather alert)	City-owned	Industrial revenue bonds
City of Cawker City Box 2 Cawker City 67430	Delbert Wallace 913/781-4713	1977	236	11	10.00	No	Separate department	Revenue bonds
Columbus Cablevision 300 East Maple Columbus 66725	Gail Houser 316/429-2159	1980	752	11	8.00	Emergency disaster warning	Separate city department	Revenue bonds
Marion Municipal Cable Vision City of Marion Marion 66601	Joan Bowers 316/382-3703	1978	412	12	12.50	No	Separate department	General obligation bonds
City of Pawnee Rock Cable Television Utility Box 218 Pawnee Rock 67567	LaWanda Hendricks 316/982-4386	1983	125 (est.)	8	20.00	No	Separate city utility department	Cable revenue bonds
City of Waverly Box 308 Waverly 66871	Susan Gutsch 913, 733-2461	1977	183	11	12.50	No	Separate city department	General obligation bonds
KENTUCKY								
Community Service, Incorporated 325 Ann St. Frankfort 40601	Ben Fowler 502/227-7513	1952	8,800	21	3.50	No	Nonprofit corporation	City loan
MASSACHUSETTS								
Shrewsbury's Electric Light Plant 100 Maple Ave. Shrewsbury 01545	James E. Baker 617/845-4881	1983	6,500	80	6.95	Energy management	Franchise awarded Electric Light Plant to construct and operate	General obligation bonds

Cable System by State	Person in charge Phone	Year Started	Subscribers	Channels	Basic Monthly Rate	Utility Use	Structure	Financing
MICHIGAN								
City of Crystal Falls 401 Superior Ave. Crystal Falls 49920	Walter E. Hagglund 906/875-6650	1959	800	10-21	$4.50	No	Part of utility	Loan from city's general fund
City of Norway CATV Box 194 Norway 49870	Junior Stanchina 906/563-9641	1954	1,392	11	4.00	No	Part of utility	Utility general fund
Wyandotte Municipal Service 3005 Biddle Ave. Wyandotte 48192	Dale Simmons 313/282-7100 ext. 364	1982	6,000	52	8.00	Future use planned	Separate department within utility	Lease system from private investors with purchase agreement at a fixed date
MINNESOTA								
Bagley City Cable TV Box M Bagley 56621	Bernie Stavig 218/694-2300	1976	506	11	7.65	No	Within utility department	Cable revenue bonds
City of Fosston Cable TV 220 First St., N.E. Fosston 56542	Russell Earls 218/435-1737	1976	570	12	6.75	Load management	Under utility	Cable revenue bonds
Jackson Municipal TV System 504 Second St. Jackson 56143	Curt Egeland 507/847-3225	1957	1,451	12	7.00			
MISSOURI								
Newburg Cable TV System Drawer K Newburg 65550	Barbara Macormic 314/762-2315	1969	260	6	5.00	No	Operated through city hall	Borrowed from private development corporation
Unionville Cable Authority 1621 Grant St. Box 206 Unionville 63565	Larry C. Weston 816/947-3316	1980	760	11	9.00	No	Separate nonprofit board	Cable revenue bonds
OREGON								
Cascade Locks CATV Box 308 Cascade Locks 97014	Ken Hobson 503/374-8484	1972	366	11	6.75	No	Separate department administered by council	Cable revenue bonds
Town of Lexington Lexington 97839	Mayor Ed Baker 503/989-8116	1959	100	8	5.00			
PENNSYLVANIA								
New Wilmington Borough Cable TV 140 West Neshannock Ave. New Wilmington 16142	Ed Garrett 412/946-8167	1979	320	16	6.00	No	Separate department	General city fund
Pitcairn Community Antenna System 582 Sixth St. Pitcairn 15140	George Myers 412/372-6500	1953	1,000	17	5.00	No	Under light department	Installation fees of original subscribers
Rouseville Television Club Rouseville 16344	Charles Licht 814/676-2171	1957	275	8	3.00			
SOUTH DAKOTA								
City of Beresford 101 North Third St. Beresford 57004	Wayne Akland 605/763-2500	1983	411	12-20	7.95			
WASHINGTON								
City of Sumas TV Cable System Box 5, Cherry St. Sumas 98295	Lawrence Silvis 206/988-5711	1953	264	7	4.50	No		
WISCONSIN								
City of Oconto Falls 104 South Franklin St. Box 70 Oconto Falls 54154	George Barber 414/846-2911	1981	Now 475; plan 600	20-52	7.95	Maybe meter reading	Under utility commission	Bank loan backed by city*



MAJOR CANADIAN ELECTRIC UTILITIES

by I. MURRAY PHILLIPS

manager, electrical services, Canadian Electrical Association

THIRTY ELECTRIC UTILITIES IN CANADA, represented by the Canadian Electrical Association (CEA), are directly responsible for generating more than 95 percent of the nation's electric energy. Most of the remaining power is generated by large industrial users who maintain their own facilities.

Most electric utilities are responsible for generation, transmission and distribution to the ultimate customer. In several cases, major generating utilities sell in bulk to municipally owned utilities. With the exception of Ontario, where 324 municipally owned utilities buy power direct from the generating and transmitting authority (Ontario Hydro), most of the major municipal utilities elsewhere in Canada also are members of CEA.

Unlike in the United States, privately owned power companies in Canada are in the distinct minority. Most utilities are owned directly and completely by their provincial governments.

In 1982, power generation in Canada was 67.75 percent hydraulic, 21.68 percent conventional thermal, 9.70 percent Canadian Deuterium Uranium (CANDU) nuclear, 0.21 percent internal combustion and 0.45 percent gas turbine. Power exports to the United States in 1982 totalled 34,214 gigawatt-hours (GWh) (down from 35,373 GWh in 1981) compared to 2,847 GWh imported (up from 1,497 GWh in 1981). This net export from Canada of 31,367 GWh (down from 33,876 GWh in 1981) represented 8.4 percent of net Canadian electricity generation, the same percentage as in 1981. Surplus generating capacity in 1983 continues to exist and increased trade in electricity with the United States would be welcome.

The following is a brief outline of the major electric utilities in Canada, by province:

British Columbia

British Columbia Hydro & Power Authority is the largest electric utility in British Columbia. It is owned entirely by the provincial government and supplies the entire province. Total installed generating capacity is 8,832 MW of which 7,491 MW are hydroelectric.

West Kootenay Power is a small private utility dedicated principally to supplying power to a large private smelter operation in the interior of British Columbia. It also supplies power to the city of Trail. Generating capacity is 42 MW, all hydroelectric.

Alberta

Alberta is the only province in Canada that has not nationalized the power companies. This is the home of Canada's two largest private power companies.

TransAlta Utilities Corp., formerly Calgary Power Ltd., is the largest private or investor-owned electric utility in Canada, with an installed generating capacity of 3,349 MW, 2,549 MW of which are coal-fired. Most of the balance, 800 MW, is hydro. Some 253,000 customers are served directly by TransAlta. That figure does not include the 204,083 customers served by the City of Calgary municipal utility which buys all of its power requirements in bulk from TransAlta.

Alberta Power, the second largest pri-

vately owned electric utility in Canada, is located in Edmonton, Alberta, and serves 128,820 customers directly, aside from some bulk power sales to Edmonton Power, the city-owned electric utility. Installed generating capacity is 668 MW, of which 516 MW are coal-fired. Municipally owned Edmonton Power has installed generating capacity of 1,050 MW, all of it gas-fired.

Alberta Power is owned by Canadian Utilities, which also owns and operates Yukon Electric in the Northwest Territories, and several gas utilities.

Saskatchewan

Saskatchewan Power Corp. serves all of the province's 371,006 electricity customers, and also services the province's natural gas needs. It is owned entirely by the provincial government. Of 2,261 MW of installed generating capacity, 1,574 MW are steam, 123 MW are derived from internal combustion and the balance, 564 MW, from hydro.

Manitoba

Manitoba Hydro, owned by the provincial government, is the largest of two electric utilities in the province. Of a total installed capacity of 3,901 MW, 3,504 MW are produced from hydro. Manitoba Hydro serves the entire province directly with the exception of its largest city, Winnipeg, which is served by the municipal utility.

Winnipeg Hydro is a municipally owned utility serving 111,376 customers within the city. Installed generating capacity consists of 140 MW of hydro and 50 MW of coal-fired thermal power.

Ontario

Ontario Hydro is the largest electric utility in Canada. Owned by the provincial government, its mandate is to meet generation and transmission requirements within the province. Distribution to ultimate customers is handled by 324 municipal utilities which buy bulk power from Ontario Hydro. Seven hundred and sixty thousand retail customers in rural areas are served directly. Dependable peak capacity is 24,906 MW. Total generation in 1982 was 104,077 GWh, including 34,527 GWh hydro, 34,567 GWh conventional thermal, 34,801 GWh CANDU nuclear and 182 GWh oil.

Québec

Hydro-Québec is the second largest utility in Canada. It is owned by the provincial government and 18,085 MW of its total capacity of 19,142 MW are hydro. In addition to its own installed capacity, Hydro-Québec has access to most of the output of the Churchill Falls power plant.

The balance of Hydro-Québec's rated capacity, 1,058 MW, used for peaking, includes 600 MW oil-fired thermal, 362.8 MW gas turbine and 94.8 MW diesel. The 685-MW Gentilly II CANDU Nuclear Generating Station is coming on-line.

New Brunswick

New Brunswick Electric Power Commission is wholly owned by the provincial government of New Brunswick. It is responsible for all generation, transmission, and distribution of electrical energy within the province. As of March 31, 1983, N.B. Power had a total nameplate capacity of 3,137 MW, composed of 1,667 MW conventional thermal generation, 29 MW of gas turbine and 815 MW of hydro. N.B. Power added the 630-MW Point Lepreau CANDU Nuclear Power Station last year, and became the third Canadian utility to operate one of these highly efficient plants.

Nova Scotia

The Nova Scotia Power Corp. is also provincially owned. Its total generation of 1,894 MW includes 621 MW coal, 746 MW oil-fired (of which 165 MW have been recently mothballed), 169 MW of gas-turbine, 358 MW hydro, and 0.3 MW of wind generation. A tidal power plant at Annapolis, N.S. will be added to the system in 1984. This plant was delayed by a province-wide electricians' strike in 1983.

Prince Edward Island

Maritime Electric Co. Ltd. is a small, privately owned utility serving Canada's smallest province. Maritime Electric's generating capacity includes 71 MW of oil-fired generation and 39 MW of gas turbine generation, interconnected to New Brunswick through a submarine cable across the strait. Maritime Electric is a wholly owned subsidiary of Montreal Engineering Co.

Newfoundland

The province of Newfoundland is served by a combination of public and private utilities. The largest utility in the province, responsible for generation primarily and some distribution in remote areas, is Newfoundland and Labrador Hydro. It is owned by the government of the province of Newfoundland. Newfoundland and Labrador Hydro also owns Churchill Falls Labrador Corp., Twin Falls Power Corp., Gull Island Power Corp. and the Lower Churchill Development Corp. Including all its subsidiaries, Newfoundland and Labrador Hydro has a total of 6,755 MW of installed capacity, of which 6,130 MW are hydro. The Churchill Falls Labrador Corp. plant represents 5,225 MW of this. There is a 450-MW oil-fired thermal plant; three gas turbine installations produce 110 MW. The other generation is diesel, serving remote areas of this sparsely populated province. Legal and technical discussions are still being held regarding the development of some sites on the Lower Churchill River in Labrador.

Aside from serving large industrial customers in some areas, and individual customers in remote areas, the bulk of Newfoundland and Labrador Hydro's generation is sold to Newfoundland Light & Power Corp., a private utility responsible for distribution to most of the island's individual customers. Newfoundland Light & Power Corp. also has some of its own generation, including 30 MW of oil-fired generation, 45 MW gas turbine generation, 14 MW of internal combustion generation and 82 MW of hydro generation.

Those are the principal utilities within Canada. Following are their addresses, phone numbers and chief operating or executive officers:

British Columbia Hydro and Power Authority, 970 Burrard St., Vancouver, British Columbia V6Z 1Y3, 604/663-2212, R. W. Bonner, chairman; J. N. Olsen, president and chief operating officer.

Alberta Power Ltd., 10040 - 104th St., Edmonton, Alberta T5J 2V6, 403/420-7310, E. W. King, president and chief executive officer.

TransAlta Utilities Corp., Box 1900, 110 - 12th St. S.W., Calgary, Alberta T2P 2M1, 403/267-7110, M. M. Williams, president and chief executive officer.

Saskatchewan Power Corp., 2025 Victoria Ave., Regina, Saskatchewan S4P 0S1, 306/527-7611, E. B. Campbell, president.

Manitoba Hydro, Box 815, 820 Taylor Ave., Winnipeg, Manitoba R3C 2P4, 204/474-3311, J. J. Arnason, president and chief executive officer.

Ontario Hydro, 700 University Ave., Toronto, Ontario M5G 1X6, 416/592-5111, M. Nastich, president.*

Hydro-Québec, 75 ouest, boul. Dorchester, Montréal, Québec H2Z1A4, 514/289-2211 Joseph Bourbeau, président de conseil; Guy Coulombe, président et directeur général.*

New Brunswick Electric Power Commission, 527 King St., Fredericton, New Brunswick E3B 4X1, 506/453-4444, A. J. O'Connor, general manager.*

Nova Scotia Power Corp., Box 910, Barrington Tower, Scotia Square, Halifax, Nova Scotia B3J 2W5, 902/424-6230, L. R. Comeau, president.

Maritime Electric Co. Ltd., Box 1328, Charlottetown, Prince Edward Island C1A 7N2, 902/892-6531, J. H. Reynolds, vice-president and general manager.

Newfoundland Light & Power Co. Ltd., Box 8910, Kenmount Road, St. John's, Newfoundland A1B 3P6, 709/737-5600, D. S. Templeton, president and general manager.

Newfoundland and Labrador Hydro, Box 9100, Philip Place, Elizabeth Square, St. John's, Newfoundland A1A 2X8, 709/737-1400, V. L. Young, chairman and chief executive officer.

Canadian Electrical Association, Suite 580, 1 Westmount Square, Montréal, Québec H3Z 2P9, 514/937-6181, D. C. Campbell, general manager.

FEDERAL POWER AGENCIES

DEPARTMENT OF ENERGY, Washington, D.C. 20585, 202/252-5000
Secretary—Donald P. Hodel, 252-6210
Deputy secretary—Danny Boggs, 252-5500
Under secretary—Pat Collins, 252/2020
General counsel—Theodore J. Garrish, 252-5281
Assistant secretary, management and administration—Martha Hesse, 252-8010
Assistant secretary, congressional, intergovernmental and public affairs—Robert C. Odle Jr., 252-5450
Assistant secretary, international affairs—(vacant)
Assistant secretary, nuclear energy—Shelby T. Brewer, 252-6450
Assistant secretary, fossil energy—Jan W. Mares, 252-6660
Assistant secretary, defense programs—Herman E. Roser, 252-2177
Assistant secretary, environmental protection, safety and emergency preparedness—William A. Vaughan, 252-4700
Inspector general—James R. Richards, 252–4393
Director, office of energy research, Alvin Trivelpiece, 252-5444
Chairman, board of contract appeals, John B. Farmakides, 633-8400.

Created under Public Law 95-91, signed by President Carter on Aug. 4, 1977, the Department of Energy (DOE) was activated on Oct. 1, 1977. The department includes federal power marketing agencies formerly in the Department of the Interior (see listings below); the former Federal Power Commission, renamed the Federal Energy Regulatory Commission (see listing below); all functions of the former Federal Energy Administration and Energy Research and Development Administration; and a variety of other functions transferred from several other federal departments and agencies.

ECONOMIC REGULATORY ADMINISTRATION, DOE, Washington, D.C. 20585, 202/252-2929. Administrator, Rayburn Hanzlik; deputy administrator, Paul Michael; special counsel, Milton Lorenz; solicitor, Carl Corrallo; director, Office of Fuels Programs, James Workman; director, office of management serv., Sandra L. DeLaney.

The Economic Regulatory Administration (ERA) is the entity within the Department of Energy responsible for administering and enforcing most of the department's regulatory programs.

ENERGY INFORMATION ADMINISTRATION, DOE, Washington, D.C., Forrestal Building 20585, 202/252-6411. Administrator, J. Erich Evered; deputy administrator, Albert H. Linden Jr., 202/252-6351; executive assistant, Lawrence Klur, 202/252-6358; director, National Energy Information Center, John E. Daniels, 252-8800 or 252-2363.

In establishing the Energy Information Administration (EIA) in 1977, Congress gave the agency the responsibility for "... carrying out a central, comprehensive and unified energy data and information program which will collect, evaluate, assemble, analyze and disseminate data and information which is relevant to energy resource reserves, energy production, demand and technology, and related economic and statistical information; or which is relevant to the adequacy of energy resources to meet demand in the near and long-term future for the nation's economic and social needs."

FEDERAL ENERGY REGULATORY COMMISSION, 825 N. Capitol Street, N.E., Washington, D.C. 20426, 202/357-8200. Commissioners (all terms expire Oct. 28 of year listed): Raymond J. O'Connor–Chairman (1987); Georgiana Sheldon (1984); John David Hughes (1983); Anthony Souza (1984); Oliver G. Richard III (1985); secretary, Kenneth F. Plumb; executive director, William G. McDonald; director, office of congressional, intergovernmental and public affairs, Charles A. McManus Jr.; director, office of electric power regulation, Larry Anderson; director, office of pipeline and producer regulation, Kenneth Williams; director, division of public information, Rachelle Patterson; director, division of congressional affairs, Pamela Simpson; director, division of intergovernmental affairs, Joan Simmons; chief, public reference branch, Natina M. Brown.

ALASKA POWER ADMINISTRATION, Box 50, Juneau, Alaska 99802, 907/586-7405. Administrator, Robert J. Cross.

Alaska Power Administration (APA) was established in 1967 to operate and market power from federal hydroelectric projects in Alaska including the 30,000-kW Eklutna Project constructed by the Bureau of Reclamation and the 47,160-kW Snettisham Project under terms of an agreement between the Department of the Interior and the Army Corps of Engineers. In fiscal 1983, APA sold 328 million kWh and had power revenues of $4.5 million.

BONNEVILLE POWER ADMINISTRATION, Box 3621, 1002 N.E. Holladay St., Portland, Ore. 97208, 503/230-3000. Administrator, Peter T. Johnson; deputy administrator, Robert Radcliffe; executive assistant to the administrator, James J. Jura; assistant administrator for power management, Edward Sienkiewicz; assistant administrator, manager of Washington, D.C., office, Larry C. Larson, Federal Bldg., Room 5317, 12th and Pennsylvania Ave., N.W., Washington, D.C. 20461, 202/633-8330.

Bonneville Power Administration (BPA), established under the Bonneville Project Act of 1937, markets power from projects constructed by the Army Corps of Engineers and the Bureau of Reclamation in the Columbia River Basin. As of Dec. 31, 1981, the Federal Columbia River Power System included 30 hydroelectric projects with 18,792,780 kW of installed capacity. During the calendar year, BPA sold 82.2 billion kWh of electricity for $718 million to 116 publicly owned and cooperative systems, 8 private power companies, 16 industries and 6 federal and state agencies in the Pacific Northwest and to 15 agencies and companies outside the Northwest.

SOUTHEASTERN POWER ADMINISTRATION, Samuel Elbert Bldg., Elberton, Ga. 30635, 404/283-3261. Administrator, Harry C. Geisinger; gen. counsel, Curtis H. Bell; chief, division of power sales, Kenelm E. Rucker.

Southeastern Power Administration (SEPA) was established in 1950 to market power from the Army Corps of Engineers projects in 10 southeastern states. In fiscal year 1983 SEPA sold 7.5 billion kWh from 21 projects with a total installed capacity of 2,712,375 kW and had revenues of $67.7 million.

SOUTHWESTERN POWER ADMINISTRATION, Box 1619, Page Belcher Federal Bldg., 333 W. Fourth, Tulsa, Okla. 74101, 918/581-7474. Administrator, Richard B. Rice Jr.; deputy administrator, Warren L. Jamison; director, power marketing division, Walter M. Bowers; director, power facilities division, James N. McClanahan; director, administrative management division, Francis R. Gajan; chief counsel, Charles A. Borchardt; public affairs officer, Bradley C. Byers; human resources officer, Maretta W. May.

Southwestern Power Administration (SWPA) was established in 1943 to market power in Kansas, Missouri, Oklahoma, Arkansas, Texas and Louisiana. In fiscal year 1983 SWPA sold approximately 5.6 billion kWh of electricity from projects with a total installed capacity of 1,983,134 kW and had gross revenues of approximately $87 million.

WESTERN AREA POWER ADMINISTRATION (incorporating federal power marketing and transmission functions which were transferred from the Bureau of Reclamation), Box 3402, Golden, Colo. 80401, 303/231 + ext. Administrator, Robert L. McPhail (1511); deputy administrator, William H. Clagett (1513); assistant administrator for management services, Sal Cianella (1517); assistant administrator for engineering, Thomas L. Weaver (1516); assistant administrator for power management, operations and maintenance, Joe D. Hall (1518); general counsel, Steven D. Brumley (acting) (1534); public affairs officer, Robert M. Zeeck (1554).

The service area of the Western Area Power Administration (Western or WAPA), a federal power marketing agency within the Department of Energy, extends into 15 western states and includes about 16,100 miles of transmission lines and approximately 7,774 MW of capacity at 47 hydro projects constructed by the Corps of Engineers and the Bureau of Reclamation. Additionally, Western markets the U.S. entitlement from the Navajo coal-fired plant near Page, Ariz. This brings the total installed generating capacity to 8,321 MW. During fiscal year 1982 power sales were about 36.0 billion kWh and power revenues were $354.7 million.

TENNESSEE VALLEY AUTHORITY, Knoxville, Tennessee 37902, 615/632-2101. Directors (9-year terms expire May 18): Charles H. Dean Jr., Chairman (1990); S. David Freeman (1984); Richard M. Freeman (1987). General manager, William F. Willis; general counsel, Herbert S. Sanger Jr.; manager of power, Hugh G. Parris, Chattanooga, Tenn. 37401, 615/751-2823.

The Tennessee Valley Authority (TVA) is a corporate agency of the federal government created by Congress in 1933 as a regional resource development agency. As of Sept. 30, 1983, the authority had a total installed capacity of 30,897,770 kW (coal-fired, 17,647,360 kW; nuclear 5,897,160 kW; hydro, 4,843,250 kW; combustion turbine, 2,510,000 kW) and also marketed the output of eight federal dams constructed by the Corps of Engineers on the Cumberland River (853,000 kW) and 4 dams of the Tapoco Co. (326,500 kW) for a total system capacity of 32,077,270 kW.

Almost 72 percent of TVA power sales of 106 billion kWh in fiscal 1983 were made at wholesale to 110 municipal utilities and 50 rural electric cooperatives serving 2.9 million consumers in Tennessee, northern Alabama, northern and eastern Mississippi, southern Kentucky, and smaller areas in northern Georgia, western North Carolina, and southwestern Virginia. TVA also sold 13.1 billion kWh to private industries, 16.4 billion kWh to other federal agencies, and 158 million kWh to private power companies.

U.S. ARMY CORPS OF ENGINEERS, 20 Massachusetts Ave. N.W., Washington, D.C. 20314, 202/272-0011. Chief of Engineers, Lt. Gen. J. K. Bratton; deputy chief of engineers, Maj. Gen. Richard M. Wells; director of civil works, Maj. Gen. John F. Wall Jr.; exec. dir., civil works, Col. Michael Volpe.

At the end of calendar year 1983 the U.S. Army Corps of Engineers had constructed and was operating 68 hydroelectric projects with a total installed capacity of 19.3 million kW. Power from corps projects is marketed by agencies of the Department of Energy.

RURAL ELECTRIFICATION ADMINISTRATION, South Bldg., U.S. Dept. of Agriculture, Washington, D.C. 20250, 202/382-9540. Administrator, Harold V. Hunter; deputy administrator, Jack Van Mark; assistant administrator-electric, Joseph S. Zoller.

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SERVING PUBLIC POWER

Stanley Building
Muscatine, Iowa 52761
Telephone 319/264-6600

ATLANTA
CHICAGO
CLEVELAND
DENVER
WASHINGTON, DC

GENERATION
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DISTRIBUTION
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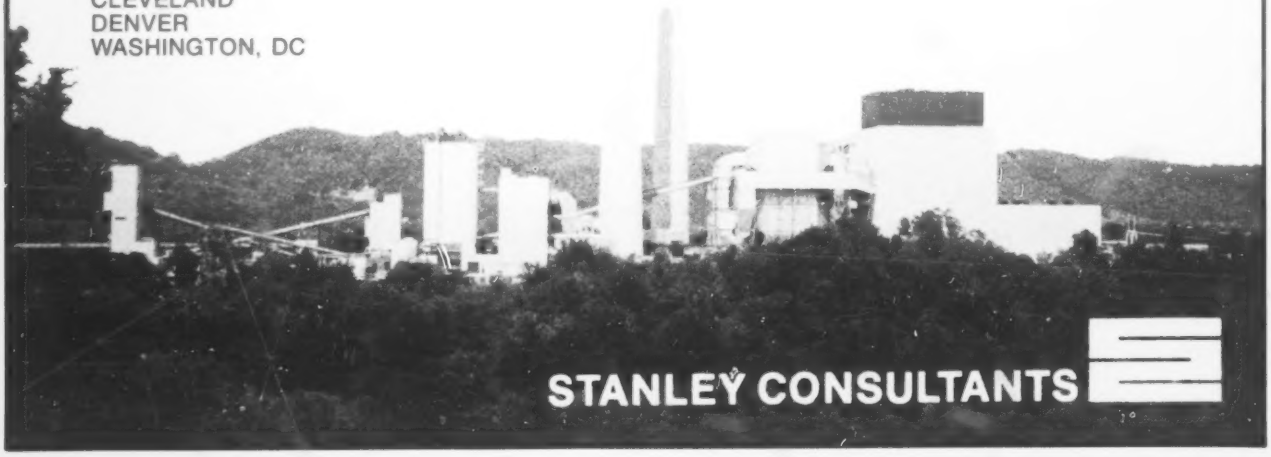
RATE STUDIES
ENVIRONMENTAL ANALYSIS



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The Rural Electrification Administration (REA), established under executive order by President Franklin D. Roosevelt in 1935 and subsequently authorized by the Rural Electrification Act of 1936, makes loans and loan guarantees to provide electric and telephone service to rural areas.

	Fiscal Year 1983	Cumulative
Insured Loans: 2 percent	*$ 2,683,000*	*$9,871,246,821*
5 percent	*847,317,000*	*7,339,511,000*
Total Insured	*850,000,000*	*17,210,757,821*
Electric loans guaranteed by REA:	*3,388,292,000*	*33,033,014,812*
Total:	*4,238,292,000*	*50,243,772,633*

NUCLEAR REGULATORY COMMISSION, 1717 H St. N.W., Washington, D.C. 20555, 202/634-1481. Commissioners (five-year terms expire June 30); Nunzio Palladino, chairman (1985); Thomas M. Roberts (1985); Victor Gilinsky (1984); Frederick M. Bernthal (1988); James K. Asselstine (1987).

The Nuclear Regulatory Commission (NRC) licenses and regulates the use of nuclear energy by licensing persons and companies to build and operate nuclear reactors and to own and use nuclear materials. NRC makes rules and sets forth standards for licenses and inspects activities of licensees.

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Local systems budget $5.39 billion for 1984 plant work

by **JEANNIE KILMER**
contributing editor PUBLIC POWER, and APPA manager of statistics and data processing

THE NATION'S LOCAL PUBLICLY OWNED electric utilities are budgeting $5.39 billion for new plant additions and improvements in 1984 — a decrease of 2 percent from the $5.5 billion they reported spending this year.

Spending for total generation is estimated to decline 11.9 percent in 1984, due to decreased spending on coal, nuclear and hydro generation. Total transmission and distribution spending, including substations, conservation and load management, is estimated to increase 16.1 percent over 1983.

A year ago, in PUBLIC POWER's annual survey of spending plans, the local public power systems indicated they expected to spend about $5.2 billion. The difference between projected and actual 1983 expenditures is largely due to transmission expenditures. The systems reported spending $827.5 million on overhead transmission in 1983, instead of the $522.4 million forecast in 1982. Most of the increase in transmission expenditures is accounted for by one joint-action agency.

The PUBLIC POWER spending figures are for municipal electric utilities and other local publicly owned systems and do not include federal power agencies, rural electric cooperatives or private power companies.

PUBLIC POWER's survey of spending plans includes reports from hundreds of municipal and other local publicly owned electric utilities, estimated to represent 70 percent of the total local public power segment of the electric utility industry on the basis of number of customers served. The reports have been projected to cover all local publicly owned systems.

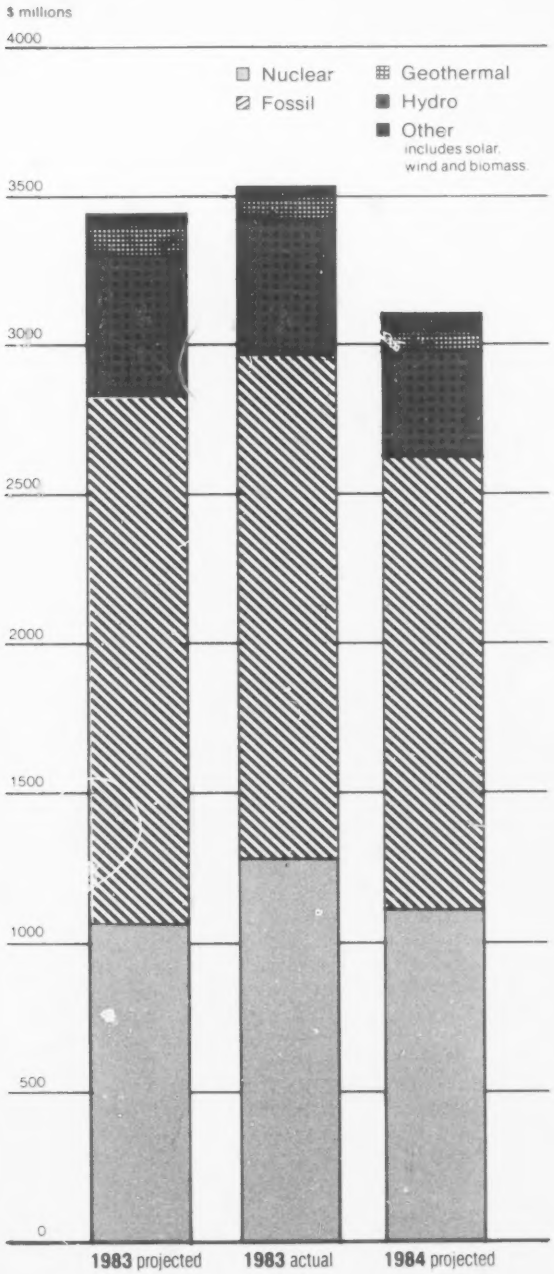
LOCAL PUBLIC POWER SYSTEM SPENDING, 1983-84

	1983 Projected	1983 Actual	1984 Projected	1983-1984 % Change
Distribution				
Overhead below 33 kV	$ 380,664,909	$ 373,507,773	$ 405,349,936	8.5
Underground below 33 kV	165,897,493	213,722,186	234,937,549	9.9
Total Distribution	546,562,402	587,229,959	640,287,485	9.0
Transmission				
Overhead above 33 kV	522,366,375	827,483,341	1,033,220,516	24.9
Underground above 33 kV	10,088,436	24,998,514	27,874,286	11.5
Total Transmission	532,454,811	852,481,855	1,061,094,802	24.5
Conservation and Load Management	133,227,839	74,353,011	71,447,623	−3.9
Substations	343,379,105	285,884,082	329,990,604	15.4
Other T&D	200,334,093	154,419,036	165,282,854	7.0
Total T&D	1,755,958,250	1,954,367,943	2,268,103,368	16.1
Generation				
Steam: Coal	1,638,914,666	1,585,732,004	1,403,085,423	−11.5
Oil	40,214,445	80,938,830	58,096,603	−28.2
Gas	64,361,136	18,341,609	14,525,121	−20.8
Nuclear	1,062,034,000	1,287,639,139	1,130,989,779	−12.2
Biomass	4,928,000	10,155,000	32,764,000	222.6
Total	2,810,452,247	2,982,806,582	2,639,460,926	−11.5
Engine: Oil-Fired	6,017,415	3,149,016	4,977,811	58.1
Gas-Fired	160,000	6,174	6,174	0
Dual-Fired	11,994,870	2,852,846	14,067,994	393.1
Gas Turbine	20,279,341	7,458,981	7,110,000	−4.7
Combined Cycle	2,199,235	4,479,114	16,875,009	276.7
Hydro	461,200,498	456,419,140	357,118,145	−21.8
Geothermal	111,392,000	80,628,800	60,207,300	−25.3
Other*	17,322,500	6,517,702	22,410,059	243.8
Total Generation	3,441,018,106	3,544,318,355	3,122,233,418	−11.9
GRAND TOTAL	5,196,976,356	5,498,686,298	5,390,336,786	−2.0

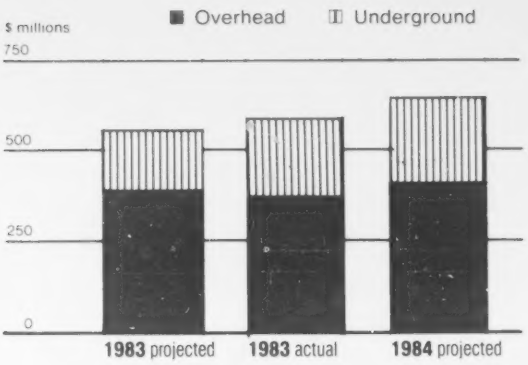
*Primarily wind, solar and compressed-air storage

Local Public Systems Plant Additions and Improvements

Generation



Distribution below 33kv



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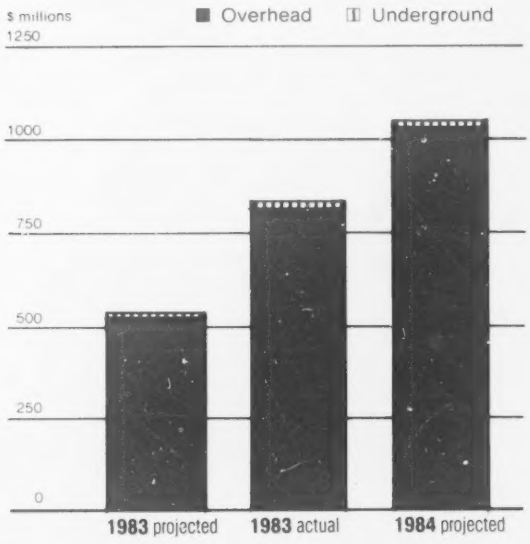
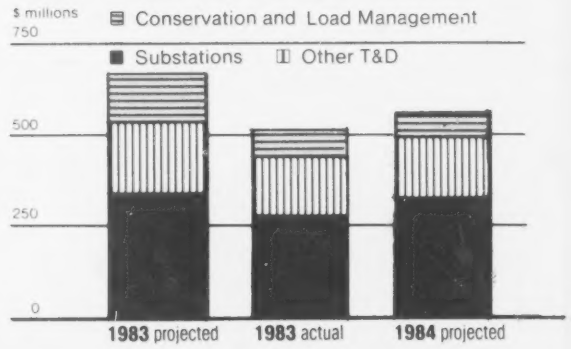


Conservation and Load Management, Substations and Other T&D



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Public Power Contributes **More** to Local Governments Than Do IOUs

by **JEANNIE KILMER** *contributing editor, PUBLIC POWER, and APPA statistics/data processing manager*

COMPARISON OF PUBLIC AND PRIVATE utility taxes may surprise persons who do not follow the issue closely. Public power systems pay proportionately more of their gross revenues to local governments than do investor-owned utilities (IOUs).

During 1982, the last year for which statistics are available, publicly owned systems contributed 6.9 percent of their gross electric operating revenue to local governments. IOUs paid 6.1 percent to state and local governments (and to the federal government as excise tax) during the same period.

Public power payments to local governments include both direct payments (taxes, in-lieu-of-tax conveyances and transfers to general funds) and indirect payments such as streetlighting, traffic signals and electricity for municipal buildings. These payments, according to data provided APPA by 653 public systems, were generally higher in the Pacific Southwest and West South Central (13.0 percent and 10.9 percent, respectively) and lowest in the East North Central and Northeast (3.9 percent and 4.5 percent, respectively).

Public power systems do not pay federal income taxes. Neither do many private electric utilities. In 1981, the last year for which official data are available, investor-owned utilities received $122.6 billion in total revenues and were charged $1.4 billion in taxes.* This amounts to 1.1 percent of total revenue. Taxes actually *paid* were less than taxes *charged*, because of tax deferral.

Forty-one private utilities either were charged no federal income taxes or received tax credit, despite their profits, because federal legislation virtually frees them from taxation.

Taxes and Payments In-Lieu-of-Taxes by Public and Private Utilities

Average percentage of gross electric operating revenue paid to state and local governments

Region	Public	Private
	(Number of systems reporting in parentheses)	
NORTHEAST	4.5%	6.8%
Conn., Maine, Mass., N.H., N.J., N.Y., Pa., R.I., Vt.	(72)	(53)
ATLANTIC	9.6%	5.7%
D.C., Del., Fla., Ga., Md., N.C., S.C., Va., W. Va.	(62)	(24)
EAST NORTH CENTRAL	3.9%	6.4%
Ill., Ind., Mich., Ohio, Wis.	(116)	(42)
EAST SOUTH CENTRAL *	6.7%*	3.8%
Ala., Ky., Miss., Tenn.	(121)	(10)
WEST NORTH CENTRAL	7.4%	7.4%
Iowa, Kan., Minn., Mo., Neb., N.D., S.D.	(158)	(22)
WEST SOUTH CENTRAL	10.9%	4.4%
Ark., La., Okla., Texas	(39)	(17)
MOUNTAIN	8.4%	4.5%
Colo., Mont., N.M., Utah, Wyo.	(24)	(7)
PACIFIC NORTHWEST	6.6%	5.6%
Alaska, Idaho, Oreg., Wash.	(44)	(7)
PACIFIC SOUTHWEST	13.0%	6.2%
Ariz., Cal., Nev.	(17)	(8)
OTHER	—	7.0%
Hawaii**	(0)	(3)
U.S. Average	6.9%	6.1%
Total number of systems reporting	(653)	(193)

SOURCES: APPA "1982 Utility Information Survey;" 1982 Federal Energy Regulatory Commission Forms No. 1, Annual Report of Electric Utilities; TVA Power Program Summary, Vol. 2, 1982; and other data supplied by TVA's Government Research Unit.

* This includes TVA in-lieu-of-tax payments to state and local governments of municipal systems that distribute TVA power. All of the public power systems in Tennessee and half of the public power systems in Alabama, Kentucky and Mississippi are TVA distributors.

** No public power systems in Hawaii.

**As reported in STATISTICS OF PRIVATELY OWNED ELECTRIC UTILITIES IN THE U.S., 1981 (DOE/EIA). Total revenues include total utility operating revenues and other income.*

The appearance as well as the characteristics of luminaires have changed during the past 50 years. Drawing Courtesy North American Philips Lighting Corp.

Streetlights Providing New Challenges, Energy Savings

by **MICHAEL K. BERGMAN** *science editor,* PUBLIC POWER, *and* APPA *staff scientist*

THOUGH TODAY'S MODERN streetlight is about 100 times more efficient than Thomas Edison's first lamp back in 1879, keeping our community's roadways and public places well lit still requires substantial amounts of electricity. Fortunately, efficiency improvements — as measured by APPA's recent streetlighting survey — are continuing to keep pace, with even greater promise for the coming decades.

Total electricity use devoted to streetlighting amounted to more than 14 *billion* kWh in 1982, an amount equivalent to 0.68 percent of the nation's electricity sales. Lighting requirements in public power communities closely mirror this national average, which was more than 2.2 billion kWh last year, or about $85 million in sales. This represents close to $40 per lamp for the estimated 2.2 million luminaires installed within public power communities.

Electricity use in streetlighting has grown by some 35 percent in public power communities over the past decade due to growth and annexation. Yet the electrical energy intensity of streetlighting declined by about 12.5 percent during this period. The recent survey of APPA's Transmission and Distribution Committee shows that plans are in place for a further 19 percent energy savings, with a potential given current technology of about 50 percent savings.

While energy, cost, maintenance, and safety considerations have driven the major changes in streetlighting over the past decade, many public power systems must also consider aesthetics, light pollution, acceptability to merchants, and other "non-economic" factors in their lighting plans.

High-Pressure Sodium Popular

Historically, streetlighting has been a public service to improve safety, reduce crime and present a modern image for attraction and retention of businesses. Streetlighting has built loads and increased off-peak energy sales.

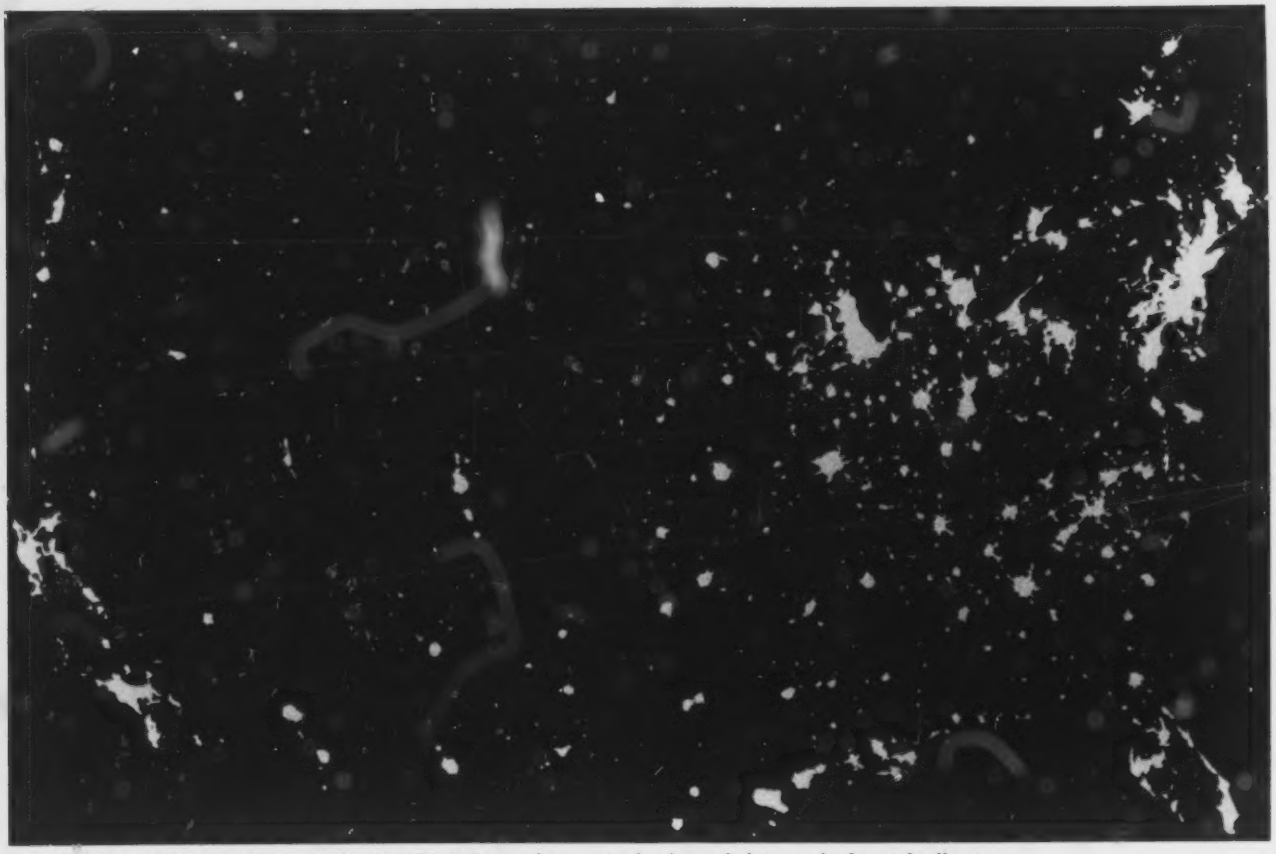
The first major transition to more modern streetlighting came in the 1960s with the replacement of incandescent lamps on series circuits by multiple-circuit mercury vapor lamps. Changed economics in the 1970s further supported this transition and created incentives for even more efficient designs. One of the more promising candidates was the high-pressure sodium (HPS) lamp. Articles targeted at streetlighting officials in the mid- to late-1970s touted HPS benefits. Today high-pressure sodium lamps dominate conversion and replacement programs.

The recent controversy over light pollution that adversely affects astronomical observatories in Southern California, however, has raised questions about the superior economics of HPS, and has raised other issues as well. Table 1 helps illustrate these points.

Table 1 compares energy, cost, operating and color characteristics for the six lamp types most commonly used in streetlighting systems. The "typical" sizes were selected from commercially available sizes to reflect similar light outputs. All types except incandescent are high-intensity discharge lamps which require a ballast to produce high voltages for startup purposes.

A general rule of thumb in streetlighting is that energy accounts for 80 percent to 85 percent of total costs over the luminaire's life. Thus energy efficiency is a key consideration in evaluating cost-effectiveness. On this basis, the low-pressure sodium (LPS) lamp with its highest efficiencies should be the lamp of choice.

But when astronomers from Mount Palo-



A satellite view of the United States, taken in 1979, indicates the magnitude of streetlighting and other night illumination.
Photo Courtesy Kitt Peak (Ariz.) Task Force

mar Observatory in Southern California approached the city of San Diego and requested low-pressure sodium lamps in streetlights because it was easier to filter out their narrow spectrum, a concerted effort by some City Council members defeated the proposal. "Bug lights," was the term one council member used to describe the light from the LPS lamps.

Astronomers Accommodated

In contrast, the cities of Phoenix, Mesa, and Tucson, Ariz., among others, and utility personnel from the Salt River Project in Phoenix have been working cooperatively with astronomers from the Kitt Peak and Lowell Observatories in Arizona to limit light pollution from their street lamps. As populations have grown and outdoor lighting proliferated, astronomers are finding stray light

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Table 1 STREET LAMP CHARACTERISTICS

Lamp Type	*Typical Size (W)*	*Initial Lumens (000)*	*Average Maintained Lumens (000)**	*Lumens/ Watt*	*Circuit Wattage/ Luminaire***	*Rated Lifetime (000 hrs)*	*Operating Costs*	*Initial Capital Investment*	*Color Characteristics*
Incandescent	860	15	12	10-25	860	3-6	high	lowest	white, broad spectrum
Mercury Vapor	400	19.5-23	16-18.4	30.65	445-460	16-24	average	low	bluish-white, wide spectrum
Fluorescent	215	15.5-16	10.7-11	45-100	230-245	9-12	average	average	white, broad spectrum
Metal Halide	400	34	24.6-25.6	80-125	445-455	7.5-20	below average	above average	white, broad spectrum
High-Pressure Sodium	250	27.5-30	24.75-27	65-140	300-310	24	low	average	golden-yellow, wide spectrum
Low-Pressure Sodium	135	22.5	22.5	100-183	178	18	lowest	average	yellow, narrow spectrum

* at 70% rated lamp life
** range based on ballast circuit design (lag or constant wattage)

Photographs in Tempe, Ariz., illustrate color differences between mercury vapor (400 watt), left, and high-pressure sodium (250 watt) luminaires.
Photos Courtesy Dale W. Taylor

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emissions are lighting their once dark skies. Astronomers are hard-pressed to compensate for light sources with broad emission spectra.

"SRP has cooperated fully with astronomers and municipalities on the replacement program," said Dale Taylor, a senior engineer at Salt River. "Salt River has tried to provide reliable information upon which to base better decisions. Cooperation is in our community's best interests," he added.

The standard agreed to in Arizona is to replace lamps as needed with low-pressure sodium, and to shield the luminaires from emitting light above the horizontal. These measures — plus restricting certain types of commercial lighting — should preserve Arizona's dark skies for many years.

LPS lamps, in particular, render most colors gray, though reportedly images are sharpened under their light. While the aesthetics of streetlight color are real and have limited the use of both HPS and LPS in many parts of the country, it is perhaps well to keep in mind the "sickly purple" description of mercury vapor lights when they were first introduced.

Perceptions other than aesthetics have also limited acceptability of LPS lamps. Though they were first developed in the 1930s, their efficiencies remained low until the last decade or so. Further, their refinement took place in Europe — where they are now common — and many lighting manuals of the last 10 years dismiss LPS lamps as an old technology with limited applicability in the United States.

Which Lamps to Choose?

Complex economics cloud the choice of lamp replacements even further. While life-cycle costing using the information in Table 1 would seem clearly to favor LPS lamps, maintenance procedures, the ability to achieve discounts with bulk purchases of lamps, the need to replace existing circuitry, and the availability of excess electric capacity all can act to limit the attractiveness of a particular lighting technology.

In California, for example, charges have been levied that private electric utilities — due to excess capacity, especially at off-peak — have promoted high-pressure sodium over low-pressure sodium because of the higher energy-using characteristics of HPS lamps. Many communities in the state felt roadblocks were being set up to limit their choices of lighting systems.

In June 1981 city officials throughout California established the California Street Lighting Association to examine utility rate structures and policies for streetlight modernization, and to investigate methods for acquiring their own lighting systems. They also wanted to encourage the state Public Utilities Commission to protect the rights of private utilities' public customers. Since the association was formed, a model resolution calling for changes in streetlighting policies has been drafted and adopted by more than 90 cities and counties.

So while straightforward economics would seem to favor the low-pressure sodium lamp over alternate lighting technologies now available, aesthetics, past perceptions, and the circumstances of individual communities will continue to play a dominant role in lighting decisions.

Multiple Circuits Common

The 58 respondents to APPA's streetlighting survey were from 26 states and ranged in size from Wellsville, N.Y., to Los Angeles, Cal. The problems and plans they noted were mostly less cosmic than light pollution of astronomical observatories. For the respondents the challenges are familiar — modernizing existing streetlighting circuits and keeping up, as economics allow, with changing and more efficient technology.

Table 2 summarizes the respondents' current situation. All told, the survey sample represents one-third of the electricity sold by public power systems nationwide. Their energy use for the 735,000 streetlights documented in the sample amounted to 735 million kWh annually. Multiple circuits are rapidly becoming the rule, with the 10 percent of the remaining series circuits targeted for replacement. Over half of the luminaires are mercury vapor, though conversion programs to high-pressure sodium lamps were noted by three-quarters of the respondents (see Table 4).

Table 2 SUMMARY OF APPA STREET LIGHTING SURVEY

Category	*Amount*
No. of Reporting Systems	58
Reporting System Sales as a Percent of Total Public Power Sales (%)	33.4
Circuit Type (%)	
Series	11.2
Multiple	88.8
Luminaires (000s)	735
Lamp Type (%)	
Mercury Vapor	59.3
High-Pressure Sodium	27.9
Incandescent	10.5
Fluorescent	1.9
Low-Pressure Sodium	0.2
Metal Halide	0.2
Quartz	0.1
Lighting Energy	
Demand (MW)	184
Energy per Year (millions kWh)	735.9
Percent of Total Sales (%)	0.69

Series Circuits Present Problems

Series circuits are the largest problem for the 39 percent of respondents who still use them. Though generally a small portion of total circuits (three systems respectively have 68, 83 and 94 percent series, however), series circuits were noted to be hard (and costly) to maintain, and replacement parts difficult to find.

They can also be dangerous. "We have several incidents each year where the public has been exposed to dangerous voltages," wrote one respondent. Circuit breaks with the transformer trying to maintain constant voltage can cause voltage to rise several thousand volts. If the cable insulation holds, then the full voltage potential can be maintained across the open break. "Series circuits are dangerous and should be outlawed," concluded the respondent.

Fortunately, every system with series circuits is planning to eliminate them soon. The incandescent lamps noted in the survey are also scheduled to be phased out.

Three survey respondents use solely high-pressure sodium lamps, and two use solely mercury vapor. Most other systems use a mixture of HPS and mercury vapor. Only 0.2 percent of the lamps used are low-pressure sodium, and only one system reported having more than 50 percent incandescents.

Three-quarters of the respondents are accelerating conversion programs. Two-thirds of the systems are converting to high-pressure sodium; only 4 percent to mercury vapor replacement lamps.

As indicated in Table 3, those systems that had switched to HPS lamps in years past reported many early problems. Five to 10 percent premature failure of lamps, burnout and failure of the ballasts, and on/off cycle problems were most frequently mentioned. These problems were noted by most respondents to have improved substantially in recent years, either through corrective action of the manufacturer or through tightened procurement specifications.

One respondent, though, noted discrepancies among ballast manufacturers. "We're all concerned about energy conservation these days so I suggest when purchasing new luminaires you carefully consider the ballast energy consumption of various manufacturers' products," he said.

In all, the survey demonstrates steady progress to 100 percent of multiple circuits with an emphasis on high-pressure sodium lamps.

Table 3 SPECIAL PROBLEMS/ COMMENTS NOTED IN APPA SURVEY

Problem/Comment	*% of Respondents*
Premature failure of HPS lamps	26
Costs and danger of maintaining series circuits	23
Initial HPS starting board/ ballast failures	17
Improvements noted in HPS ballast lifetime	14
On/off cycling of HPS lamps	9
Outages on underground circuits	9
Improvements noted in HPS lamp lifetime	6
HPS lamps banned due to adverse effects on trees	less than 5
Plastic shields required due to vandalism	less than 5
Declining quality in newly purchased photocells	less than 5
Lightning damage to mercury vapor lamp ballasts	less than 5
HPS ballast overloading of transformers on series circuits	less than 5
Grounding dangers with fiberglass poles	less than 5
Short life of metal halide lamps	less than 5

Maintenance, Accounting Crucial

Even with the most modern and efficient technology, good maintenance is essential to satisfactory performance of a streetlighting system. For example, light losses can approach 35 percent due to accumulated dust and dirt on lamps, reflectors and glassware. A further 25 percent reduction can occur in aging lamps due to filament deterioration or lamp blackening.

Routine maintenance can identify these problems and lamps that have been prematurely burned out, accidentally broken or damaged by vandals. These maintenance routines can be combined with a group replacement program geared to the observed operating lamp lifetimes. Most group replacement programs replace lamps at 65 to 80 percent of rated life.

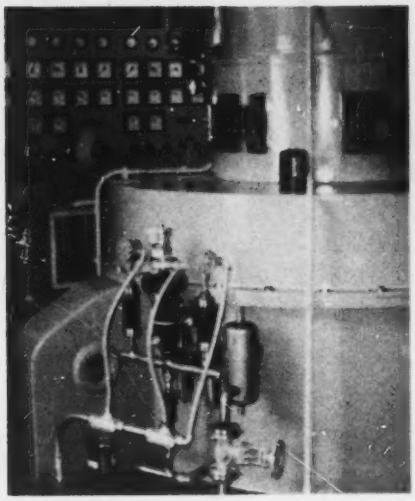
Establishing such programs first requires an adequate inventory of luminaires by locale, size, type and operating history. This information is essential to plan routes and to establish maintenance schedules.

Another key is proper accounting of the economics and energy usage of luminaires. Street lamps should be billed on actual, rather than estimated, usage. Individual photoelectric cell controls can also help by keeping lamps on only when needed. If applicable, consider off-peak rates. Finally, in calculating energy usage, ballast losses should be fully accounted.

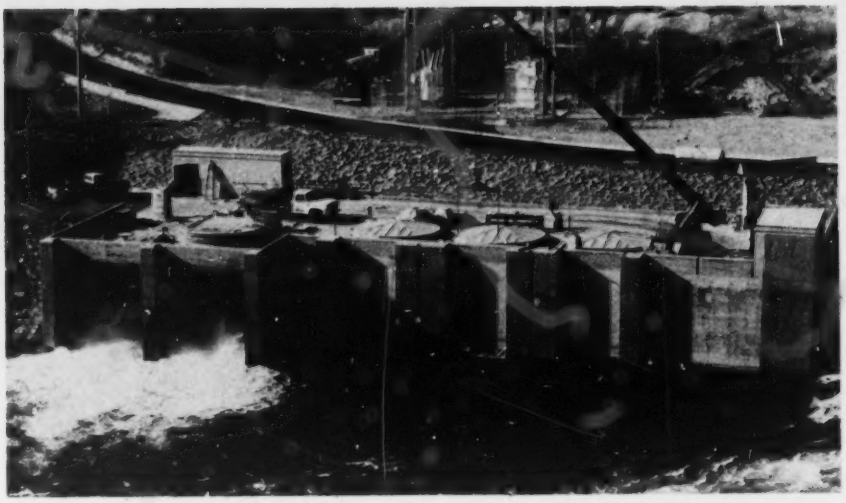
With the proper technology, rates and

continued on page 69

The Salt River Project and some other Arizona communities will replace high-pressure sodium luminaires, such as these in Phoenix, with low-pressure sodium lamps, shielded to reduce glare which handicaps astronomers using telescopes on nearby mountain peaks. Photo by Dick Dietrich



Synchronous ac generators for East Bay's 10.7-MW Camanche Power Plant were built at the Dongfang Electrical Machinery Works in Sichuan Province.
Photo Courtesy Oriental Engineering & Supply Co.



East Bay's Camanche Power Plant, 270 feet downstream from existing dam control works on the north bank of the Mokelumne River, is a baseload plant that will generate an annual average of 40 million kWh. It includes three 4,200-horsepower vertical adjustable blade Kaplan-type turbines, three electric-hydraulic governors and three 3,750-kVA generators. *Photo Courtesy East Bay*

chine, he said. American contractors also working on the project complained the hand process was too time-consuming.

Later a concession was made to the Americans when seven Chinese engineers were working together on one part of the project, instead of each working on different parts in an assembly-line style often used by Americans, Tom said.

"As for cooperation, they were extremely polite and careful not to criticize work done by the American workers. That doesn't mean there weren't differences of opinion," Tom said. "It was a learning process; it wasn't all one way." ✹

Streetlighting

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maintenance schedules, consumers will receive adequate and safe lighting at the lowest cost possible.

Analysis of respondents' plans for modernizing their lighting systems — as summarized in Table 4 — indicates an additional 19 percent improvement in energy intensity within the next few years. With a complete changeover to multiple circuits and high-pressure sodium or similarly efficient lamps, total energy intensity could decrease by 50 percent or more. This potential is already being achieved by the most efficient quartile in the survey sample.

That such efficiency improvements make economic sense is reflected in articles and press releases featuring public power systems. The village of Skaneateles, N.Y., for example, replaced 38 of 307 mercury vapor lamps with high-pressure sodium units. This sample replacement had a payback of less than two years, while providing 30 percent more light with 40 percent less energy. Tacoma, Wash., anticipates saving 16 million kWh through its program of replacing 30,000 mercury-vapor and incandescent lamps with high-pressure sodium or metal-halide lamps.

Table 4 STREET LIGHTING PLANS

Activity	*% of Respondents*
Replace all existing series circuits	100
Active conversion program, other than simple replacements or additions	75
Replace all lamps as needed with high-pressure sodium	70
Install photoelectric cell control	11
Conform with Illuminating Engineering Society standards	6
Replace lamps as needed with mercury vapor	4
Reduce lighting levels	2

HPS Controversial

Yet, as noted earlier, cost savings and efficiency gains may be superseded by other concerns. For instance, Dover, Del., chose not to install high-pressure sodium lamps downtown because the merchants believed the light would change the attractiveness of window displays. Dover is using mercury vapor downtown instead.

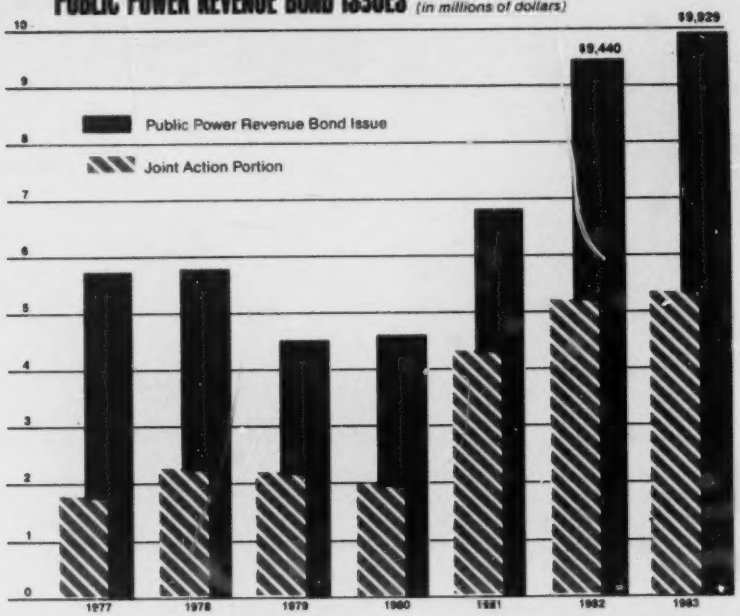
In Littleton, Mass., quite another concern was raised. After a test street in the center of town was outfitted with high-pressure sodium lamps, citizens at a town meeting protested potential adverse effects on trees, shrubs and animals from the sodium light. When representatives of the state environmental protection agency confirmed that sodium light may cause adverse effects the town banned the lamps. Since that decision was reached in 1978, Littleton's replacement lamps have been incandescent and mercury vapor.

Since the early 1970s numerous claims have been made concerning adverse effects of light from high-pressure sodium lights. Change in plant dormancy periods, cataracts, mood changes and other ailments have been ascribed to the light. To date none of these claims has been proven. But these concerns may deter use of a technology that is being continually improved and could provide large efficiency gains in the future.

The two leading candidate technologies for near-term street lamps — high- and low-pressure sodium — have already demonstrated large efficiency gains. Further gains appear likely. A survey of lighting experts in 1979 projected that high-pressure sodium lamps would achieve 175 lumens per watt within 20 years. A leading manufacturer of low-pressure sodium lamps plans to introduce a 200-lumens-per-watt lamp in 1985. The theoretical efficiency limit for high-pressure sodium is 385 lumens per watt; for low-pressure sodium, 510 lumens per watt.

With increased efficiency the economic rationale for switching to such lamps increases. Continued efficiency gains should also be expected from improved solid-state ballasts. How each community will balance lower costs and energy use with aesthetics and environmental concerns remains to be seen. ✹

Public Power Bond Issues Up 5%



LOCAL PUBLICLY OWNED ELECTRIC utilities issued a record $9.9 billion worth of electric revenue bonds in 1983. This was a 5 percent increase from the $9.4 billion they sold in 1982, which had been a 35 percent increase over the $6.8 billion sold in 1981.

All tax-exempt bond sales, which had increased by 65 percent to $74.9 billion in 1982, increased by 8 percent to $81.2 billion last year.

Public power revenue bonds amounted to 12.2 percent of all tax-exempt bonds sold in 1983, compared with 12.3 percent in 1982 and 15 percent in 1981, according to Lehman Brothers Kuhn Loeb's annual compilations of tax-exempt bonds. Data sources are THE BOND BUYER, the Public Securities Association and Securities Data Co.

The one joint-action agency which issued more than $1 billion in bonds last year was Intermountain Power Agency, headquartered in Murray, Utah, with $1.5 billion. Intermountain also placed the largest single issue last year, $900 million, on March 1.

Joint-action agencies accounted for $5.3 billion of the $9.9 billion public power bond total, 54 percent, as compared with 56 percent of the public power total in 1982 and 63 percent in 1981.

The nine-year total of electric revenue bonds issued by 32 joint-action agencies totals $24.4 billion, an increase of 28 percent over the $19.1 billion issued by 25 joint-action agencies through 1982.

Public power revenue bond sales by quarter, in millions of dollars, were:

Quarter	1981	1982	1983
1st	$1,432	$2,611	$3,070
2nd	1,676	2,143	3,561
3rd	2,256	1,425	1,570
4th	1,442	3,067	1,747

The seven agencies which issued bonds or notes for the first time last year are: Alabama Municipal Electric Authority, Florida Municipal Power Agency, Indiana Municipal Power Agency, M-S-R Public Power Agency (Cal.), Municipal Energy Agency of Nebraska, Southern Minnesota Municipal Power Agency and United Minnesota Municipal Power Agency.

Seventy-eight of the public power issues last year, totaling $9 billion, were negotiated; 37 issues, totalling $890 million, were competitive. Within these totals, joint-action agencies negotiated 24 issues totalling $5.3 billion. No joint-action issues were competitive. In 1982 one of the 24 joint-action agency issues was competitive, the rest negotiated. In 1981, 16 joint-action agency issues were negotiated and five of them were competitive.

Total Bonds Issued by Joint-Action Public Power Systems

Issuer	1975–1983	Total (000)
Alabama Municipal Electric Authority		$1,000
Connecticut Municipal Electric Energy Cooperative		87,750
Florida Municipal Power Agency		290,000
Heartland Consumers Power District		297,840
Indiana Municipal Power Agency		143,000
Intermountain Power Agency		3,000,000
Kansas Municipal Energy Agency		22,885
Louisiana Energy and Power Authority		109,515
Massachusetts Municipal Electric System		26,100
Massachusetts Municipal Wholesale Electric Co.		1,117,870
Michigan Public Power Agency		634,370
Michigan South Central Power Agency		95,040
Mississippi Municipal Energy Agency		3,300
M-S-R Public Power Agency		447,200
Municipal Electric Authority of Georgia		1,625,000
Municipal Energy Agency of Nebraska		15,000
North Carolina Municipal Power Agency Number 1		1,575,000
North Carolina Eastern Municipal Power Agency		1,300,000
Northern California Power Agency		315,000
Northern Municipal Power Agency		268,000
Platte River Power Authority		1,053,400
Sam Rayburn Municipal Power Agency		319,390
City of Sikeston, Mo.		250,000
Southern California Public Power Authority		982,875
Southern Minnesota Municipal Power Agency		211,000
Texas Municipal Power Agency		1,606,260
United Minnesota Municipal Power Agency		64,500
Utah Associated Municipal Power System		66,000
Vermont Public Power Supply System		59,235
Washington Public Power Supply System		8,120,000
Western Minnesota Municipal Power Agency		278,150
Wyoming Municipal Power Agency		21,540
9-Year Total		**$24,406,220**

the other side

What Our Readers Say

by VIC REINEMER *editor, PUBLIC POWER*

LAST FALL WE CONDUCTED the first PUBLIC POWER readership survey in years. Margaret Winfough tabulated the 275 responses (out of 1,200 random mailings) on an old-fashioned spreadsheet. (We are just beginning to use an IBM Personal Computer for magazine work, so next time we'll use an electronic spreadsheet.) The survey results have gone to the APPA board of directors and the 75 respondents who requested them, but other readers may be interested in the main findings.

The types of articles which readers want to see most deal with rates and services, conservation and load management. Next in popularity, among the top 10 of 24 categories, are articles about APPA activities, financing, and statistics, followed by legislation and regulation, the annual directory, generation and transmission, and energy services planning.

The 126 public power managers or staff members responding ranked conservation first; the 32 governing board members ranked it 14th.

The governing board members and 32 rural electric cooperative respondents ranked articles about rates and services first.

If you want a copy of the six-page summary of the readership survey write Margaret Winfough, PUBLIC POWER, 2301 M St. N.W., Washington D.C. 20037.

Articles about management and joint action tied for first place among board members, but ranked only 7th and 14th, respectively, among public power managers and staff.

Articles about safety ranked only 14th among all respondents, but second among public power managers and staff.

The least popular articles, although a majority of respondents want continued coverage, deal with energy abroad and personnel. Forty-one respondents who do not want additional personnel articles do not have direct responsibility for utility operations—suppliers, financiers, advertisers, subscribers and government officials.

'APPA Papers' Was Dark Horse

The dark horse among regular magazine features was APPA Papers, the listing of written presentations at Association workshops, seminars and conferences. But Outlook and Insights, written by Executive Director Alex Radin, nosed out APPA Papers—only 2 percent of respondents found his column "not useful" as compared with 3 percent for APPA Papers. My column was "not useful" to 5 percent of the respondents. The "not useful" percentage of other regular features was 10 for Inside APPA, 11 for New Products, 20 for Meetings and 24 for Books.

Overall, 25 percent rated the magazine "excellent," 77 percent "good," 5 percent "fair." None rated it "poor." Those ratings pleased all of us "P-PACers" (the PUBLIC POWER advisory committee listed on the masthead which meets periodically to critique the magazine and brainstorm its future contents). It was heartening too to learn that 86 percent of the respondents share their copies of the magazine, many of them with three or more persons. Nothing (except a paid subscription) pleases me more than a route slip on a dog-eared copy of PUBLIC POWER.

Three responses came from investor-owned utility officials. Not surprisingly, they do not want continued coverage of public power benefits and history. So they probably will not like Jeannie Kilmer's article, in this issue, which shows that public power systems contribute proportionately more to state and local governments than private power systems do.

Feature Small Systems

More than 50 respondents wrote in comments. Several readers asked for more articles about smaller public power systems. We plan to have more. Readers with small systems can help expand that coverage by calling or writing me or Assistant Editor Lori Woehrle at 202/775-8300.

Another respondent asked for more pictures of power people at work. This led to the suggestion, at our January P-PACers meeting, that we sponsor a photo contest, with cash prizes, to build up our always insufficient file of sharp pictures showing interesting public power projects and people. More on that later. Meanwhile, any early-bird photo entries, color or black-and-white, with captions, will be eligible for prizes.

A governing board member asked that we encourage readers "to evaluate or comment on articles through letters." All readers have a standing invitation to do that, and I hope that governing board member and other readers follow up on the suggestion. ✹

CORRECTION

Revised reports by two systems increase the installed capacity of local public power systems in 1982, as reported on page D-2 of the January-February 1984 Directory issue, from 68.4 million kW to 71.7 million kW. The total national installed capacity of U.S. utilities was 651.5 million kW of which local public power systems had 11.0 percent, private utilities 74.5 percent, rural electric cooperatives 3.6 percent and federal agencies 10.9 percent. ✹

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Electric transmission issues need attention; the stakes are substantial.

FRONT COVER: Access to transmission lines is critically important, and legislation to provide it is needed, reported an APPA task force. Its chairman, Chip Stockford, tells why in his article beginning on page 10. *Photo by Sandra Cooper*

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Public Power COSTS LESS

IOU residential rates averaged 44% higher in 1982

by JEANNIE KILMER
contributing editor, PUBLIC POWER and APPA manager of statistics/data processing

LATEST OFFICIAL FIGURES DEMONSTRATE once again that the consumer-owners of the nation's local publicly owned electric utilities enjoy electric rates significantly lower than those paid by customers of private power companies.

Comparative statistics for 1982, just published by the Department of Energy's Energy Information Administration (EIA), continue the annual electric utility industry statistical series begun by the former Federal Power Commission (FPC) in 1946. Each report has shown that the local publicly owned segment of the pluralistic electric utility industry has been the leader in providing consumers with lower cost power.

The data appear in EIA's publications of statistics for electric utilities, privately owned and publicly owned. These reports represent nearly 100 percent of the investor-owned utilities (IOUs) and a lesser portion of the publicly owned systems. EIA's statistics for 1982 cover 203 private power companies and 162 local publicly owned electric utilities. EIA statistics for publicly owned utilities have been supplemented with data for an additional 110 municipal utilities published in "TVA Power Program Summary, Volume II." These 110 utilities were included in the EIA or FPC reports for 1978 and earlier years.

The average residential consumer in a local public power system used 23.5 percent more electricity in 1982 than the average residential customer of the private power companies — 10,188 kWh to 8,252 kWh. But the public power consumer paid 14.3 percent less on the average for 23.5 percent greater annual consumption — $483.03 to $564.71. Average residential revenue for the companies in 1982 was 6.83 cents per kWh, 44.1 percent higher than the public systems' average of 4.74 cents per kWh. Or, to phrase it differently, average residential rates paid by public power customers were

SALES TO RESIDENTIAL CONSUMERS*

	Average Annual kWh Consumption		*Average Revenue Per kWh (cents)*		*Average Annual Bill (dollars)*	
	Private	*Public*	*Private*	*Public*	*Private*	*Public*
1946	1,298	1,739	3.29	2.32	$42.67	$40.32
1950	1,767	2,518	2.95	1.99	52.14	50.06
1955	2,573	3,824	2.76	1.69	70.97	64.63
1960	3,454	5,208	2.62	1.58	90.51	82.46
1965	4,618	6,634	2.39	1.53	110.53	101.26
1966	4,931	7,007	2.34	1.50	115.37	105.13
1967	5,220	7,317	2.31	1.49	120.38	108.90
1968	5,706	7,880	2.28	1.47	128.43	115.93
1969	6,246	8,546	2.21	1.45	137.99	123.90
1970	6,700	9,015	2.22	1.47	148.92	132.89
1971	7,039	9,378	2.32	1.56	163.08	146.47
1972	7,391	9,630	2.42	1.63	178.96	156.95
1973	7,742	10,080	2.54	1.70	196.54	170.80
1974	7,550	9,797	3.10	1.94	233.85	190.54
1975	7,830	10,125	3.51	2.33	275.17	236.19
1976	7,840	9,539	3.78	2.79	295.94	265.76
1977	8,256	10,791	4.06	2.79	334.92	300.91
1978	8,453	11,383	4.31	3.00	364.35	341.23
1979	8,319	10,940	4.64	3.22	385.70	352.43
1980	8,531	10,744	5.36	3.77	457.23	405.07
1981	8,277	10,391	6.20	4.32	513.11	448.79
1982	8,252	10,188	6.83	4.74	563.71	483.03

*Care should be taken in the use of this data due to year-to-year variations in sample size.

SALES TO COMMERCIAL AND INDUSTRIAL CONSUMERS*

Average Annual kWh Consumption		*Average Revenue Per kWh (cents)*		*Average Annual Bill (dollars)*	
Private	*Public*	*Private*	*Public*	*Private*	*Public*
28,110	22,475	1.50	1.29	$421.55	$289.24
33,653	25,124	1.54	1.33	518.55	334.40
49,038	38,329	1.45	1.19	711.04	457.55
61,944	49,421	1.49	1.22	922.71	604.69
79,201	66,396	1.40	1.18	1,109.26	783.93
85,265	70,557	1.37	1.16	1,168.58	818.81
89,347	74,373	1.37	1.16	1,224.13	865.43
96,332	79,687	1.36	1.15	1,307.14	916.71
102,965	85,683	1.36	1.15	1,395.61	983.24
107,041	89,653	1.40	1.17	1,502.43	1,052.87
110,973	92,778	1.50	1.26	1,671.12	1,170.33
117,793	98,384	1.58	1.31	1,863.05	1,294.31
124,082	103,785	1.68	1.40	2,083.46	1,449.28
121,112	102,974	2.19	1.64	2,655.04	1,693.43
119,381	110,076	2.62	1.97	3,127.77	2,178.01
125,296	111,414	2.82	2.38	3,531.09	2,654.90
130,602	124,331	3.12	2.38	4,076.98	2,954.33
132,610	129,874	3.39	2.65	4,497.61	3,444.14
133,355	129,342	3.66	2.88	4,877.69	3,722.15
129,499	124,586	4.38	3.41	5,673.85	4,251.19
129,022	126,429	5.07	3.88	6,542.72	4,902.13
122,096	127,807	5.72	4.31	6,982.79	5,508.46

30.6 percent below the average paid by customers of IOUs.

2.09¢ per kWh Difference

Thus, on the average, residential customers of the private power companies paid 2.09 cents more for each kWh of electricity used in 1982 than consumers served by local publicly owned electric utilities. In 1981 the spread was 1.88 cents per kWh.

Revenue per kWh of electricity sold to residential consumers increased in 1982 for both the privately owned and publicly owned electric utilities. In the case of the public systems, revenue per kWh of residential use went up from 4.32 cents per kWh in 1981 to 4.74 cents per kWh in 1982. For the private companies, average revenue per kWh of electricity sold to residential customers climbed from 6.20 cents to 6.83 cents in 1982.

In 1982 the average commercial or industrial customer of a local public power system used 4.7 percent more power than the average commercial or industrial user served by a private power company (127,807 kWh to 122,096 kWh). But the private utility average customer's annual bill was 26.8 percent more ($6,983 to $5,508).

Average commercial and industrial revenue for the privately owned companies, 5.72 cents per kWh, was 32.7 percent higher than the 4.31 cents per kWh for the publicly owned sytems.

Average commercial and industrial revenue per kWh was higher in 1982 than in 1981 for both the private and publicly owned utilities — up from 5.07 cents to 5.72 cents per kWh for the companies, and from 3.88 cents to 4.31 cents per kWh for the public systems.

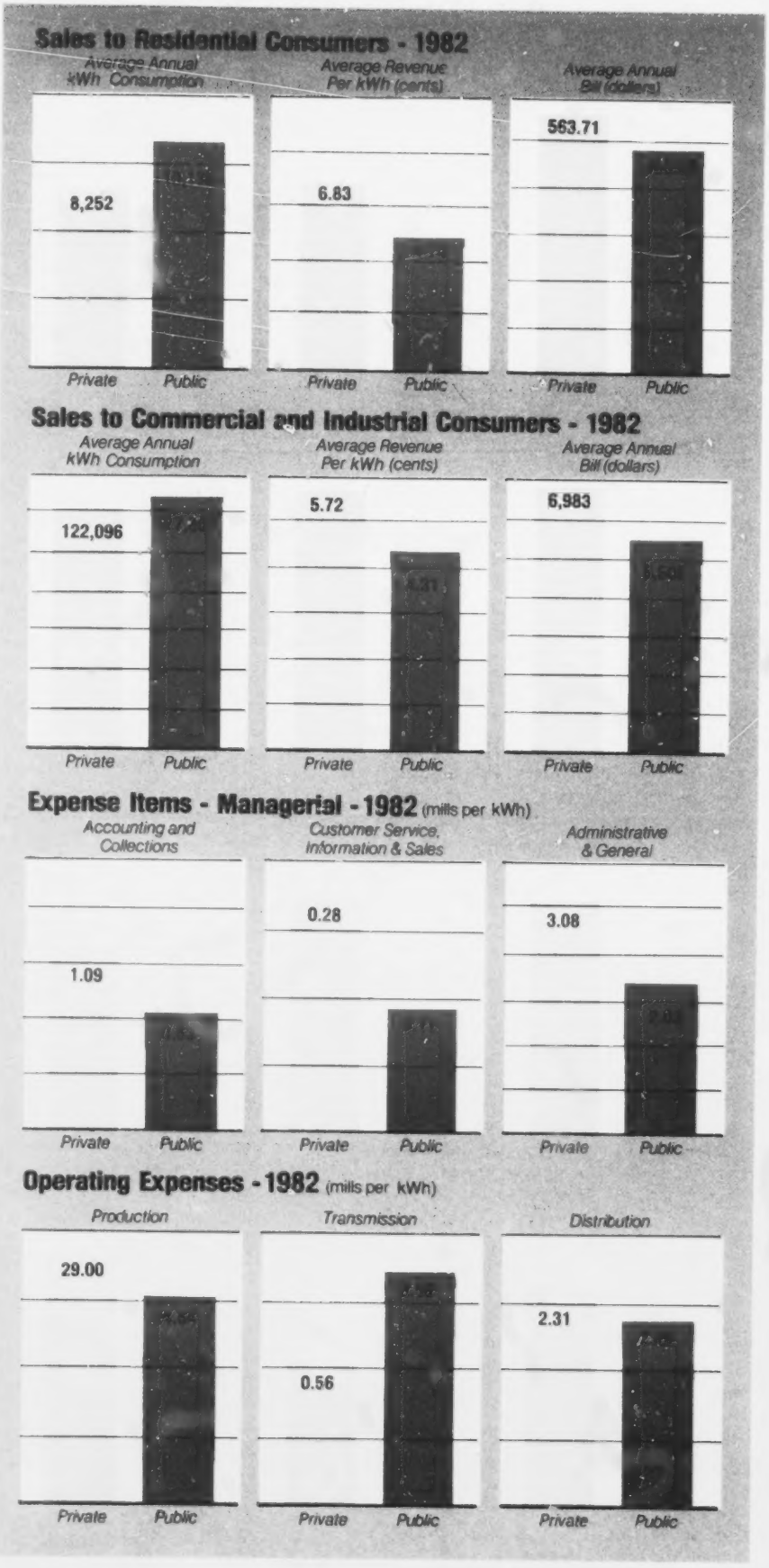
IOU Expenses Higher

Administrative and general expenses reported by the public systems were lower than the private power companies' on the basis of expense per $100 of revenue ($5.17 to $5.42) and on the basis of kWh sold (2.03 mills per kWh for the publicly owned systems compared to 3.08 mills per kWh for the companies).

Accounting and collections per customer cost the investor-owned utilities $28.97 in 1982, compared with $23.33 for the publicly owned utilities. This cost was $3.15 higher than 1981 for the IOUs and rose $2.46 for the public systems.

On the basis of kWh sales, accounting and collections cost the companies 1.09 mills per kWh, compared with 0.63 mills per kWh for publicly owned utilities.

In 1982, the private power companies spent 50 cents of each $100 of revenue for customer service, information and sales expenses (previously reported as promotion



and advertising expenses), up eight cents from 1981; the publicly owned systems spent 29 cents of each $100 of revenue for this item — down two cents from the previous year.

Customer service, information and sales expenses of the companies were 0.28 mills per kWh sold, compared with 0.11 mills for the public power systems.

Production Costs Up

Production costs per kWh were lower in the public systems than the companies in 1982, for the 13th consecutive year. In 1982, both the privately owned utilities and the public power systems experienced increases in production costs over the previous year: from 27.89 mills per kWh in 1981 to 29.00 mills per kWh in 1982 for the companies; and from 23.53 mills per kWh to 24.64 mills per kWh for the publicly owned systems.

Distribution expenses per customer rose for both types of systems in 1982 — from $45.19 in 1981 to $50.62 in 1982 for the companies, and from $48.97 in 1981 to $53.80 in 1982 for the public systems. Distribution expenses for the companies were 2.31 mills per kWh sold to ultimate customers, compared to 2.09 mills per kWh sold to ultimate customers by the public systems.

For the sixth year since the federal statistics have been published, IOU transmission costs were lower. In 1982 their transmission expenses per kWh rose to 0.56 mills, up from 0.46 mills in 1981 and 0.43 mills in 1980; the public systems' transmission costs in 1982 were 0.86 mills per kWh, up from 0.81 mills in 1981 and 0.68 mills in 1980.

The publicly owned electric utilities had electric operating revenue of 3.92 cents per kWh sold in 1982, while the privately owned electric utilities had operating revenues of 5.68 cents per kWh. The private companies had net interest charges which equaled 0.50 cents for each kWh sold and dividends on preferred and common stock equal to, respectively, 0.13 cents and 0.48 cents per kWh sold. The publicly owned utilities had total income deductions equal to 0.52 cents per kWh sold in 1982.

The cost of debt and equity capital for the privately owned utilities was equal to 16.7 percent of operating revenue. The public systems, which do not pay dividends to private stockholders, paid the equivalent of 13.3 percent of their operating revenue as interest on long-term debt and for other income deductions.

These latest statistical reports show that in 1982, as in the previous 36 years since the comparative statistics have been published, the local publicly owned electric utilities are leading the industry in providing economical electric service to consumers. ✹

EXPENSE ITEMS

OPERATIONS

	Production		Transmission		Distribution	
	Per kWh Sold (in mills)		*Per kWh Sold (in mills)*		*Per Customer (in dollars)*	
	Private	*Public*	*Private*	*Public*	*Private*	*Public*
1946	4.35	4.30	.27	.14	$9.37	$9.19
1950	4.96	4.68	.26	.13	12.04	11.77
1955	4.42	4.68	.26	.13	14.18	13.79
1960	4.20	4.70	.25	.15	16.19	10.24
1965	3.98	4.34	.21	.15	17.48	17.93
1966	4.01	4.36	.21	.16	17.84	18.54
1967	4.03	4.31	.21	.15	18.67	19.37
1968	4.09	4.16	.21	.15	19.31	20.43
1969	4.21	4.23	.22	.13	20.56	22.88
1970	4.76	4.61	.23	.15	22.14	24.15
1971	5.49	5.25	.24	.16	22.82	25.41
1972	5.97	5.71	.25	.16	24.13	26.02
1973	6.70	6.47	.26	.17	25.52	27.53
1974	10.72	8.01	.29	.18	26.46	29.98
1975	12.70	9.35	.31	.21	27.63	31.78
1976	13.73	12.04	.34	.29	29.51	34.18
1977	15.87	13.28	.35	.54	31.76	33.78
1978	17.27	14.37	.37	.64	34.81	35.94
1979	19.69	16.32	.40	.67	37.68	38.17
1980	24.14	20.16	.43	.68	41.90	44.83
1981	27.89	23.53	.48	.81	45.19	48.97
1982	29.00	24.64	.56	.86	50.62	53.80

MANAGERIAL

	Accounting and Collections Per Customer		*Customer Service Information and Sales Per $100 Revenue*		*Administrative and General Per $100 Revenue*	
	Private	*Public*	*Private*	*Public*	*Private*	*Public*
1946	$3.73	$2.82	$1.77	$1.03	$7.22	$6.11
1950	4.44	3.35	1.79	1.11	7.90	6.85
1955	5.33	4.00	1.73	.95	6.73	6.59
1960	6.38	4.94	1.70	1.04	6.29	6.31
1965	7.06	6.15	1.79	1.14	6.23	5.80
1966	7.18	6.13	1.83	1.09	6.00	5.84
1967	7.34	6.48	1.79	1.10	5.87	6.23
1968	7.68	6.78	1.75	1.10	5.70	6.10
1969	8.11	7.36	1.69	1.08	5.74	6.08
1970	8.86	7.98	1.54	1.01	5.87	6.25
1971	9.61	8.77	1.30	.89	5.84	6.06
1972	10.31	9.18	1.00	.80	5.88	5.96
1973	11.33	9.55	.74	.67	5.78	5.79
1974	13.26	10.61	.42	.50	5.19	5.65
1975	15.25	12.33	.30	.35	4.98	5.14
1976	16.34	14.50	.27*	.28	4.99	5.09
1977	17.17	12.75	.36	.22	4.94	4.68
1978	18.59	15.87	.36	.22	5.11	4.64
1979	20.25	16.41	.38	.29	5.21	4.24
1980	22.51	18.40	.37	.28	5.08	4.45
1981	25.82	20.87	.42	.31	5.05	4.22
1982	28.97	23.33	.50	.29	5.42	5.17

(*) "Customer Service, Information and Sales" was formerly listed as "Promotion and Advertising." The 1976 and subsequent figures reflect a federal reporting change which combined sales expenses with customer service and information expenses.

JULY-AUGUST 1984

publicpower

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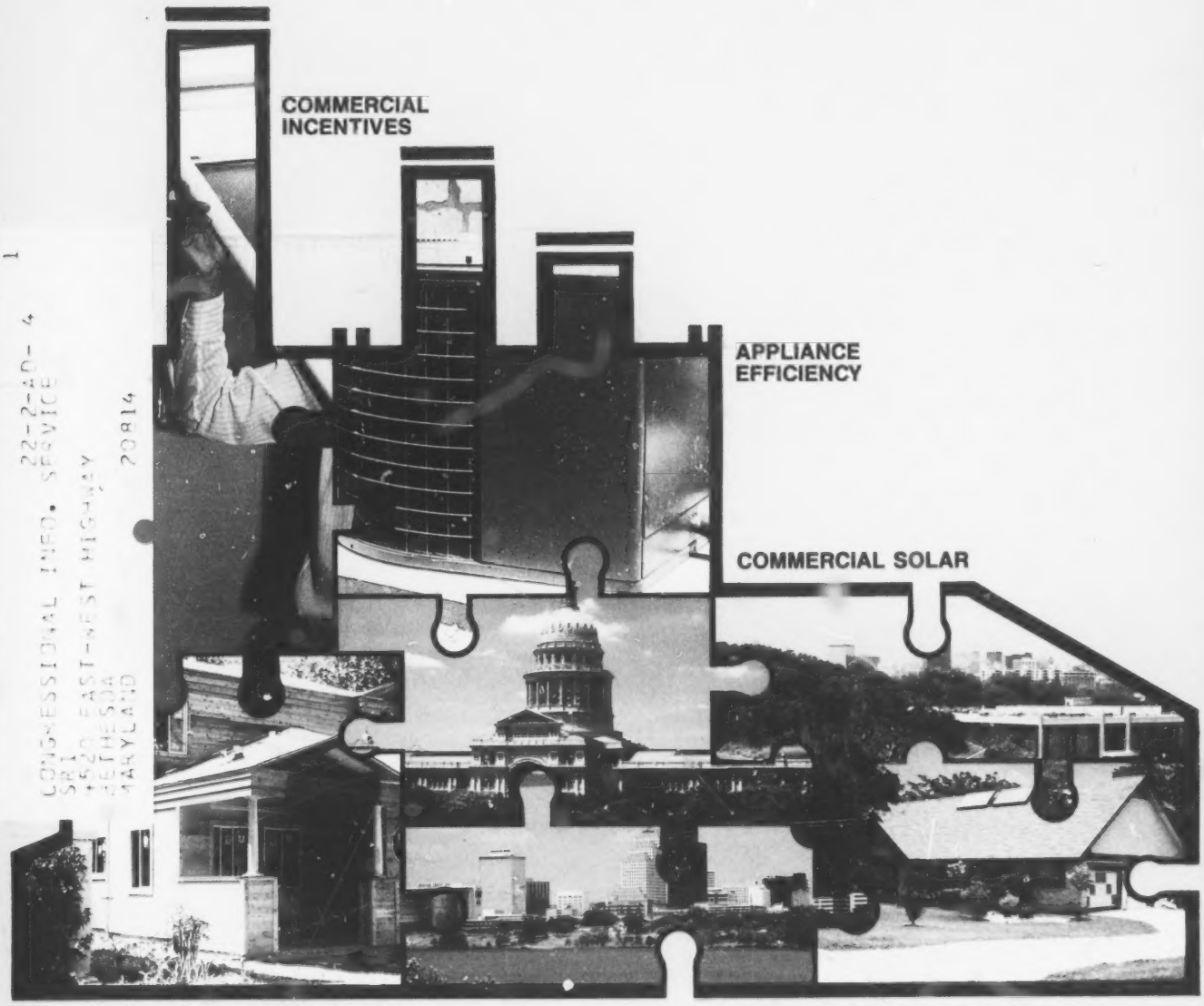

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AUSTIN'S CONSERVATION POWERPLANT

public power

JULY-AUGUST 1984

VOLUME 42 NUMBER 4

Heat pumps and natural gas compete head-to-head in Lincoln, Neb. See p. 30.

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APPA mounts preference campaign; membership year sets record; Association committees reorganized; APPA staff expands; new publications offered.

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Competition for hydroelectric licenses, which private utilities seek to avoid through H.R. 4402, leads to environmental and energy benefits.

COVER: Austin (Texas) Electric Utility won an APPA Innovator Award for developing the equivalent of a large power plant through a variety of energy-saving programs. Pictures of other award winners appear on pp. 22-23.

Cover design by Austin Electric Utility.

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NATURAL GAS

Editor's note: Most of the advertisements and claims which the public sees and hears regarding the heat pump vs. natural gas controversy come from private electric and gas companies. Officials of publicly owned gas and electric utilities also have sharply differing views. PUBLIC POWER *asked two of them to present their views, which follow.*

by ARIE M. VERRIPS
executive director
American Public Gas Association

VIENNA, VA.

THE NATURAL GAS INDUSTRY today serves more of the home heating needs of the nation than any other energy form. Approximately 57 percent of all U.S. homes are heated by natural gas despite the millions of dollars spent each year by the electric industry to promote electricity.

Natural gas is dominant in the home heating field for a number of reasons. One primary reason is that natural gas is generally cheaper. Although heat pumps use heat from outside air, the national average cost of one million Btus of electricity is four times greater than one million Btus of natural gas. (See accompanying table.) Thus, the electric heat pump simply cannot compete with natural gas for heating efficiency.

Price is not the only reason natural gas is preferred by residential users. Natural gas delivers energy at a much higher efficiency than do competing energy alternatives.

In addition, gas offers:

- **lower installed costs**—Installed costs of a new gas system with electric air conditioning are generally several hundred dollars less than a comparable electric heat pump equipped with supplemental electric resistance heat.
- **reliable low-cost maintenance**—The gas furnace has a reputation of trouble-free operation that is hard to beat. Many gas furnaces go their entire life without a single service call. This is a major advantage over the electric heat pump, which has a history of mechanical failures and service requirements. The higher repair rate is reflected in the more expensive and shorter service contracts for the electric heat pump.
- **longer equipment life**—The gas system can last *twice as long* as the electric heat pump. Gas furnaces have a typical life of 17 to 20 years and air conditioners of about 14 years. Electric heat pumps typically last only seven to 10 years. Most homeowners are not aware of this important factor when they make their purchase.
- **greater comfort**—Gas furnaces deliver warm air around 130 F. While air from a gas furnace feels warm, the 95 F from the electric heat pump may feel cool. Heat pumps must also have a higher air flow than gas furnaces, which may cause a feeling of

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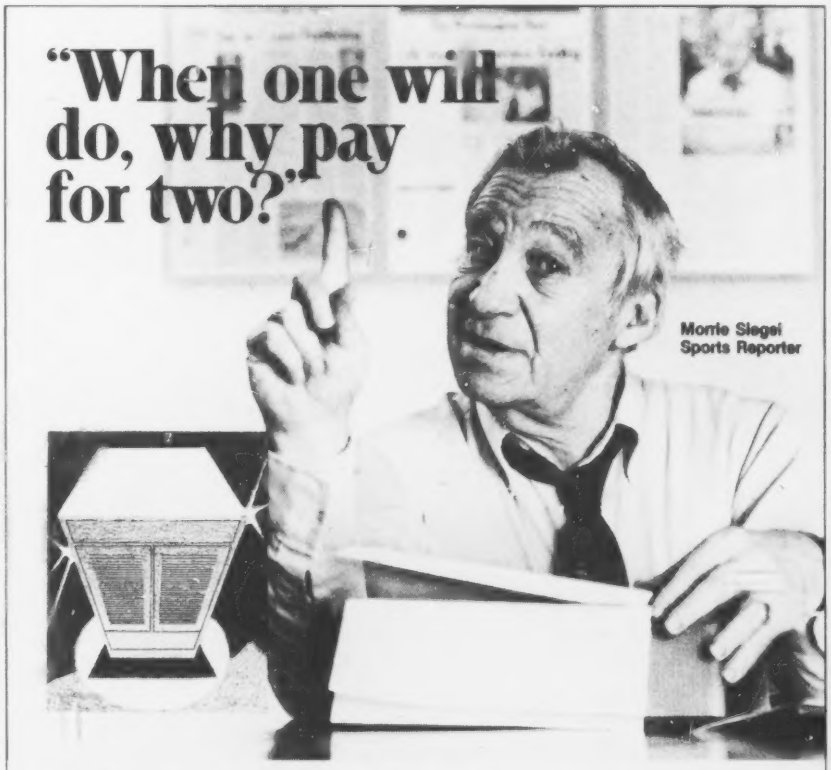

With a gas furnace, you don't need expensive add-on machinery, and nothing beats the economy, comfort and convenience of gas heat.

It's no contest! "After covering sports for over 35 years, I know a winner when I see one—and that's gas heat. If you've got it, as I have, you sure don't need the expense, problems, and restrictions of a heat pump. So when one will do, why pay for two?"

For free brochures on High-Efficiency Gas Furnaces and Boilers, and Electric Heat Pumps, call

941-HEAT

Washington Gas

VS. HEAT PUMPS

by WALTER A. CANNEY
administrator, Lincoln (Neb.) Electric System

LINCOLN, NEB.

IT IS LESS EXPENSIVE to heat a home here in Lincoln with an electric heat pump than with a natural gas furnace. This fact—confirmed by the independent Lincoln Energy Commission—is a key point that the privately owned gas companies prefer not to dwell on in the "gas *vs.* electric" debate.

The gas companies emphasize points that are less clearly understood by the public, such as relative system comfort or system flexibility. This emphasis indicates the case for natural gas heat is not as strong as the gas companies would like our ratepayers to believe.

The "gas *vs.* electric" debate here stems from initiation by the Lincoln Electric System (LES), nearly two years ago, of programs to inform our customers about local energy facts and assist them in making the wisest long-term energy decisions.

We did not launch these programs simply to sell electricity, nor simply to sell as many heat pumps as possible. They were initiated based on comprehensive studies indicating potential communitywide savings in the tens of millions of dollars in the years ahead.

Late in 1979 the LES Administrative Board, at the request of the Lincoln City Council, directed our system to determine potential costs and benefits of reducing forecast growth at peak demand for electricity.

The studies spanned more than two years, cost some $250,000 and involved LES staff, local citizens and an outside consultant. Several recommendations by the study group, such as continuing and expanding our comprehensive building energy audit program and other energy conservation activities, have been implemented. One recommendation, which may have escalated the "gas *vs.* electric" debate, was that LES develop and implement programs to improve the system load factor.

More than 90 percent of our customers use air conditioning, so LES is a summer-peaking utility. However, natural gas provides more than 90 percent of all winter heating in Lincoln. With a summer peak nearly double the winter peak the annual system load factor for LES is in the range of 41 to 42 percent.

Surveys confirmed that existing generation and transmission facilities were adequate to serve thousands of additional electric space- and water-heating systems; conversions from gas to electric heat would improve the system load factor, benefiting all LES ratepayers with lower-than-forecast rate increases in the future. Another key factor was that the gas industry had increased the price of gas to the point that electricity was competitive for home heating. During the late 1970s and early 1980s, natural gas rates in Lincoln increased an

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Dave Butz on the heat pump.

"Pepco asked me to sit here and tell you about the heat pump. Because it's so energy efficient, and because . . . as a defensive lineman . . . I enjoy sitting on anything that runs well.

"In fact, the heat pump runs so well that it's the most efficient heating system on the market today. And it cools, too.

"Heat pumps save energy by pumping solar heat into your home in the winter, and pump the heat out of your home in the summer.

"A heat pump could be used with your present heating system or by itself.

"Energy-saving heat pumps are made by many heating and air conditioning manufacturers.

"For a free brochure or information on quality contractors who can install heat pumps, call Pepco at 833-7500."

pepco
Potomac Electric Power Company

The switch is on to new ideas.

Well-known sports figures vie for utility customers in the Washington, D.C., area. Redskin lineman Dave Butz commends heat pumps and reporter Morrie Siegel praises gas.

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draftiness. This is a major complaint and a major reason why many heat pump owners have converted to natural gas heating. Some individuals, such as elderly persons or children who have a need for warmer air, probably should not be in a heat pump home.

- **suitability for all replacement applications**—The gas system can replace virtually any existing system. Because of the high air flow required by electric heat pumps the entire duct system must be replaced before it can replace fossil fuel systems. A major cause of electric heat pump failures has been duct design.
- **system flexibility**—The gas system can be sized to meet both heating and cooling needs. A gas furnace and air conditioner can be sized independently to meet heating and cooling requirements. The electric heat pump has a fixed heating and cooling capacity. If electric heat pump size is based on the building's cooling requirements, this can result in poor heat pump performance.
- **more efficient cooling**—The electric air conditioner is designed for optimum cooling. The electric heat pump operates in reverse mode to provide cooling. Because an electric heat pump must both heat and cool, its design represents a compromise between these two modes. Electric heat pumps must incorporate reversing valves and a different heat exchanger to accommodate both modes. Electric air conditioners will almost always operate more efficiently than the electric heat pump—in some cases, up to 25 percent more efficiently. Therefore, when the seasonal electric rate increases, the operating efficiency decreases with the heat pump, thus increasing the cost for cooling comfort.

'Natural gas delivers energy at a much higher efficiency than do competing energy alternatives.'

Beware of Gimmicks

Whenever products or services are in competition for the consumer dollar, there will be a variety of statements, claims and approaches to get consumer attention. Consumers must be careful not to be overwhelmed by "super-sales" by way of celebrity involvement or the gimmick approach.

For example, the WASHINGTON POST carried an advertisement April 23 in which Potomac Electric Power Co. features Washington Redskin defensive lineman Dave Butz in an ad for heat pumps. To be sure, such advertising is particularly attractive to thousands of Redskin fans in the Washington area (including senators and representatives). But it had absolutely nothing to do with the facts necessary to determine the most favorable and efficient heating system for residential consumers in the Washington, D.C., area.

The Pepco ad quotes Butz: "Pepco asked me to sit here and tell you about the heat pump. Because it's so energy efficient, and because... as a defensive lineman... I enjoy sitting on anything that runs well." Such advertising is sensational for football fans and extremely profitable to the celebrity.

On the other hand, Washington Gas Light Co. turned to veteran sports commentator Morrie Siegel for his opinion on the value of gas heating. "After covering sports for over 35 years, I know a winner when I see one—and that's gas heat," said Siegel, who criticizes the electric heat pump as an expensive, inefficient and uncomfortable way to heat a home.

So now we have the opinion of two celebrities, both of whom doubtlessly know less about energy efficiencies, costs and comparisons than anyone reading this article. But of course the intent of such advertising is not to attract the attention of energy experts but rather that of consumers who may not have all the facts necessary to make decisions for heating equipment and competing fuels.

While an article for national distribution must be based upon national averages for cost of competitive fuels, better comparisons can be made at the local area where rates for competing fuels are available.

'The gas system can be sized to meet both heating and cooling needs.'

For example, rates for both electricity and gas are relatively high in the Northeast. Thus, competition for heating loads in that region can be close for heating oil and natural gas, with electricity coming in third. In the West, natural gas is considerably less expensive than in the Northeast, but in parts of the Midwest publicly owned power systems benefit from large-volume contracts for hydroelectric power because as publicly owned systems they are entitled to preferential treatment for low-cost federal hydro power. There competition runs fairly close

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COMPETITIVE FUEL PRICES *($/MMBtu)*

	Industrial				*Residential*		
	No. 6 Oil						
	Low Sulphur	*High Sulphur*	*Electricity*	*Natural Gas*	*Heating Oil*	*Electricity*	*Natural Gas*
1978	2.10	1.84	8.18	1.90	3.53	12.63	2.53
1979	3.13	2.60	8.94	2.23	5.08	13.60	2.92
1980	4.51	3.49	10.81	2.79	7.02	15.71	3.61
1981	5.54	4.50	12.57	3.29	8.61	18.17	4.16
1982	4.99	4.08	14.51	3.97	8.31	20.11	4.97
1983 Jan.	4.71	4.02	14.74		8.29	19.49	
Feb.	4.38	3.93	14.54	4.56*	8.05	19.72	5.64*
Mar.	4.42	3.82	14.86		7.58	20.31	
Apr.	4.30	3.92	14.42		7.46	20.25	
May	4.47	3.99	14.33	4.41*	7.56	21.10	5.97*
Jun.	4.63	4.01	14.54		7.64	21.72	
Jul.	4.70	4.10	14.98	4.26	7.57	21.98	6.61
Aug.	4.78	4.22	14.68	4.29	7.56	22.04	6.82
Sep.	4.85	4.36	14.65	4.20	7.62	22.13	6.81
Oct.	4.82	4.34	14.68	4.09	7.64	21.98	6.18
Nov.	4.72	4.30	14.16	4.11	7.64	21.25	5.83
Dec.	4.81	4.22	14.10	4.16	7.69	20.43	5.50

* Average price per quarter

NOTES: National average natural gas prices are generally lower than the price of competing fuels in both the residential and industrial markets. The rise in gas prices during the past several years has closed the gap in industrial markets—particularly those markets in which high sulphur residual fuel oil is suitable. In some locations residual fuel oil is less expensive than natural gas; however, for residential markets and premium fuel industrial markets, natural gas is still the least expensive fuel.

SOURCE: Department of Energy, MONTHLY ENERGY REVIEW and PETROLEUM MARKETING MONTHLY and American Gas Association, QUARTERLY REPORT OF GAS INDUSTRY OPERATIONS and MONTHLY GAS UTILITY STATISTICAL REPORT.

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average of more than 20 percent per year, while electric rates increased an average of less than 8 percent per year.

In the long-term interests of ratepayers, LES decided early in 1982 to promote installation of efficient end-use electric equipment. This included cash incentive payments, and in some cases monthly billing credits. We began urging installation of residential electric water heaters, solar-assisted electric water heaters, resistance heating systems, heat pumps with electric or non-electric supplemental heat and solar-assisted electric heating that meet published LES efficiency standards and are adaptable to load management.

Needless to say, the gas companies did not ignore us. We were challenged by both Minnegasco, the local gas distributor that is a subsidiary of Diversified Energies in Minneapolis, Minn., and by Northern Natural Gas Co. of Omaha, Neb., the pipeline supplier to Minnegasco.

They challenged the accuracy of the studies that led to our load factor improvement program, and the information we provide to heating contractors, home builders and others. They lodged complaints with the Better Business Bureau about our media advertising. These attacks on our credibility were unsuccessful.

At the same time, the gas interests increased advertising and intensified one-on-one sales efforts. For example, a developer considering electric heat learned he would not have to pay the nearly $10,000 aid-to-construction cost for a gas line to his development, provided all the dwelling units had natural gas furnaces and water heaters. Some homebuilders were offered a free gas kitchen range and a chance for an expense-paid out-of-town football trip, provided the new homes they built had natural gas furnaces and water heaters.

The state association also reproduced and distributed misleading anti-heat pump literature that is used nationwide. Heat pumps were attacked as uncomfortable and inflexible, with installation, maintenance and operating costs higher than for natural gas furnaces. The association repeatedly used the national average cost of electricity, which is nearly double the cost of electricity in Lincoln, to attempt to prove higher costs for a heat pump.

'We do not rely solely on manufacturers' data on equipment efficiency.'

LES does not respond in kind. Our promotional/marketing strategy provides customers present and projected local energy costs; professional and unbiased analyses of alternatives; and other information to help them decide what meets their needs.

We do not, for example, rely solely on manufacturers' data on equipment efficiency. Our field tests of heat pumps in customers' homes reveal an average efficiency somewhat lower than that listed by manufacturers. We tell our customers this is what they may experience.

Prospective buyers are informed of the characteristics of heat pumps. We point out that the temperature of the air delivered by a heat pump is lower than air from a gas furnace. This seems to concern few people, since the temperature differential is actually not as significant as the gas companies would like people to believe.

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ENERGY COST TRENDS FOR SPACE HEATING AND COOLING IN LINCOLN, NEB.

Heating-Cooling System	**Average Annual Energy Operating Costs,** *Excluding Equipment*							
HIGH EFFICIENCY	Efficiency Htg./Cooling	1981	1982	1983	1984	1985	1986	1987
Elec. Heat Pump inc. A/C	7.15 HSPF*/9.3 SEER**	$441	$453	$493	$514	$536	$558	$580
Nat. Gas Furnace/ Elec. A/C	90% AFUE***/9.8 SEER	$517	$569	$661	$676	$709	$756	$791
Elec Furnace/ Elec. A/C	100%/9.8 SEER	$716	$751	$816	$847	$884	$920	$957
MEDIUM EFFICIENCY								
Elec Heat Pump inc. A/C	6.5 HSPF/8.1 SEER	$495	$507	$552	$575	$600	$625	$650
Nat. Gas Furnace/ Elec. A/C	81% AFUE/8.6 SEER	$577	$634	$736	$754	$790	$842	$881
Elec. Furnace/ Elec. A/C	100%/8.6 SEER	$740	$775	$842	$874	$912	$950	$988

Average Annual Energy Costs, *Including Operating and Equipment*
(based on 1982 equipment costs)

HIGH EFFICIENCY	Life Yrs.	1981	1982	1983	1984	1985	1986	1987
Elec. Heat Pump/Elec. Furn. Supp.	11/22	$672	$684	$724	$745	767	$789	$812
Nat. Gas Furnace/Elec. A/C	22/11	$723	$775	$867	$883	915	$962	$997
Elec. Furnace/Elec. A/C	22/11	$892	$928	$993	$1,023	$1,060	$1,097	$1,133
MEDIUM EFFICIENCY								
Elec. Heat Pump/Elec. Furn. Supp.	11/22	$709	$722	$766	$790	815	$839	$864
Nat. Gas Furnace/Elec. A/C	22/11	$738	$796	$898	$915	952	$1,003	$1,042
Elec. Furnace/Elec. A/C	22/11	$893	$928	$995	$1,027	$1,065	$1,103	$1,141

NOTES: An electric heat pump system provides both heating and cooling. Costs of operating the indoor fan are included in all heating and cooling costs. If the residence does not have an electric water heater operating costs shown for the electric heat pump system and electric furnace could increase by up to $66 for 1984, $69 for 1985, $72 for 1986 and $75 for 1987. Equipment costs do not include installation charges and are divided by life-years to arrive at annualized equipment cost. A typical residence includes approximately 1,500 square feet of space. Design heating loss is 50,000 Btu hours; design cooling loss is 36,000 Btu hours. Chart developed by Lincoln Energy Commission in cooperation with Lincoln Energy System and Minnegasco. *heating season performance factor; **seasonal energy efficiency ratio; ***annual fuel utilization efficiency.

NATURAL GAS

continued from page 32

between natural gas and electricity. In other areas of the country where low-cost federal power is available to publicly owned systems competition for the heating load can run close. But where low-cost preference customer federal power is not available, electricity for heating purposes is not competitive with natural gas.

Predicting the future of competitive fuel prices is difficult. However, it is unlikely that any will increase sharply over others. So, relative comparisons in 1984 pricing are likely to be reasonable thresholds to determine future cost experiences.

Edison Electric Institute, trade association of investor-owned electric utilities, found that natural gas for home heating is preferred by home owners by about a two to one margin. In view of the new gas heating systems with up to 96 percent efficiency, the margin in favor of natural gas heating preference will doubtlessly increase sharply.

Natural gas heat is generally less costly than electric heat, can be more comfortable than electric heat pumps and can provide extra savings in water heating and cooking. Thus hopes that electric heating can compete with natural gas are outruled in the foreseeable future.

HEAT PUMPS

continued from page 33

We urge our customers to obtain competitive bids from more than one heating contractor, and for all heating and cooling systems they are considering. We then offer a side-by-side analysis of gas and electric systems so they can compare actual installed costs, current and future operating costs and life-cycle costs.

Interestingly, such analyses show there is little difference in Lincoln between the installed cost of an air-source heat pump and a combination higher efficiency natural gas furnace and central air conditioner. But the operating cost, that very important heating and cooling bill paid by the customer, is lower with the heat pump.

'The heat pump is a Lincoln homeowner's best buy.'

One of the stronger supporting documents for our promotional efforts is the table accompanying this article, produced by the independent Lincoln Energy Commission—21 citizens appointed by the mayor and confirmed by the City Council and including representatives of both our municipal electric system and the privately owned gas system. A local citizen suggested to the Lincoln City Council that a document showing energy cost trends for home heating and cooling be prepared to help citizens resolve the "gas *vs.* electric" question here. The City Council asked the Lincoln Energy Commission for a recommendation.

After months of debate the commission recommended that such a comparison be prepared. The City Council passed a resolution directing the energy cost trends comparison be compiled and updated any time gas or electric rates change. It is to be available to the public in the offices of the city clerk, city building inspector, LES and the local gas company.

The document compares medium- and high-efficiency gas and electric space conditioning systems, as well as water heaters, based on gas and electric costs in Lincoln. It shows operating and life-cycle costs for heating and cooling a typical 1,500-square-foot home for a seven-year period—three past years, the current year and three future years based on rate forecasts.

The comparison shows that the heat pump is a Lincoln homeowner's best buy, today and in the future. The gas company representative on the commission initially voted in favor of the comparison, the gas company now maintains it should be "corrected." Nonetheless, this remains an official, unbiased, third-party comparison of energy costs in Lincoln.

LES is making progress, although slower than we would like, in informing our customers of true energy costs and trends in our community. The economic slowdown has been a hindrance. But a significant portion of new buildings, particularly multifamily dwellings, are being built all electric.

A major concern we continue to address is the misconception that heat pumps are something new, different or unreliable, and that electricity is too expensive for most people to use in home heating. That such beliefs are widespread is partially our own fault. We virtually abandoned promotion of electricity in the early 1970s, leaving gas company claims unchallenged. Recovering that lost ground cannot be accomplished overnight. But we are making progress.

The facts show that an electric heat pump is the least expensive system for home heating and cooling in Lincoln today. That may not be the case in every area of the nation, but it is true for many locations.

In looking to the future, we are convinced we can continue to maintain our competitive price edge over natural gas. This will be a significant advantage in attaining our goal of increased off-peak use of electricity to improve the system load factor and provide our ratepayers the benefits of lower future electric rate increases.

This announcement appears as a matter of record only.

$530,000,000

ORLANDO UTILITIES COMMISSION

$250,000,000	Electric and Water Revenue Bonds, 1984 Series A
$280,000,000	Electric and Water Revenue Bond Anticipation Notes Series 1984 (Private Placement)

The undersigned acted as Financial Consultant to the Orlando Utilities Commission

M.G. LEWIS & CO., INC.
Winter Park, Florida

June 4, 1984

HOW PUBLIC POWER SYSTEMS COMMUNICATE

by **MADALYN CAFRUNY**, *contributing editor*, PUBLIC POWER, *and* APPA *public information director*

NATIONAL PUBLIC OPINION polls on energy and electric utility service tell us Americans (1) know little about energy and their utilities; (2) worry about electricity costs and environmental protection; and (3) blame utility managements for rising prices.

A survey by Consumer Dimensions Inc., which specializes in customer relations, showed customers of different utilities have varying opinions about the performance of their utilities. Part of the difference can be explained by how well the utilities try to understand their customers' perceptions and attitudes, the firm said.

The American Public Power Association estimates fewer than 10 percent of the almost 2,200 public power systems in the nation have a formal public relations program with a professional staff designated to carry out a planned communication effort. Interest in establishing communication programs is increasing, though, along with managers' enthusiasm for upgrading existing functions to serve customers better.

Survey Answered 4 Questions

An APPA Public Communications Committee survey of public power systems represented on the committee provided information late last year on how public power systems organize, staff and operate public relations departments. The survey posed these questions:

- What is the typical organization of the communication department in a public power system?
- What are the department's functions?
- What are communicators paid?
- What resources are available to carry out public relations programs?

Ten of the 38 respondents were from systems with less than 20,000 meters; seven systems had from 20,000 to 63,000 meters. At the other end of the spectrum five systems had more than 200,000 meters. Respondents included public relations officials from six joint-action agencies and five federal, regional and state public power agencies or associations.

Table 1 shows the diversity of functions performed by public relations personnel, from writing to—in a few instances—lobbying. There was no direct relationship between system size and number of functions for which utility communication departments are responsible. Communicators employed by joint-action agencies also have varying responsibilities.

Table 2 shows salary ranges of the heads of the communication sections by size of system, annual communication budgets and the number of communication staff professionals in 1983.

Half of the respondents were part of one- or two-person communication staffs. Only one system with less than 20,000 meters employed more than one professional communicator; three of 10 systems in this category had no full-time communicator.

Three of the seven systems with 20,000 to

TABLE 1: FUNCTIONS OF COMMUNICATORS

function	*number of respondents*
Preparing brochures, etc.	35
Media relations	34
Annual report preparation	30
Public speaking	29
Special events	29
Employee newsletters	28
Audiovisual production	28
Advertising	27
Consumer contact	27
School programs	23
Speech writing	23
Speakers bureau	21
Public opinion surveys	18
Customer newsletters	18
Employee relations	18
Training	15
Lobbying	6

TABLE 2 SALARY RANGE BY SIZE OF SYSTEM FOR HEAD OF COMMUNICATION SECTION—1983 *(in thousands)*

38 Respondents

Size of system	$12-18	$18-24	$24-30	$30-36	$36-42	$42-48	$48-60	Above $60
Fewer than 20,000 meters (10 respondents)*	2	4	1	1		1		
20,000-70,000 meters (7 respondents)			3	2	2			
70,000-120,000 meters (3 respondents)				1	2			
120,000-170,000 meters (2 respondents)				1			1	
More than 170,000 meters (5 respondents)					1	1	2	1
Joint-action agencies (6 respondents)		1		1	1	1	1	1
Other organizations (5 respondents)					1	1	2	1
TOTALS	2	5	4	6	7	4	6	3

*One system did not have a separate communication function

'Public relations is a planned effort and should have goals and objectives as precise as those for a power supply program.'

70,000 meters had more than one communication professional. All of the utilities with more than 70,000 meters employed more than one communicator, although there was no direct relationship between size of system and number of staffers. Seven of the 38 systems employed eight or more public relations professionals.

Two-thirds of the heads of a communication section report to the general manager or an assistant general manager. Nine of the 38 systems do not have a separate public relations budget; their costs are budgeted under general administrative services. About half of the other systems budget less than $50,000 for public relations, but six of the larger systems each budgeted more than $400,000. In general, communication budgets increased with system size.

Forty percent (15) of the survey respondents used graphic artists on a regular basis to assist in designing printed materials. Ten respondents reported they worked with audiovisual production firms, nine with advertising agencies, and seven with public relations firms. Other consultants involved in public relations programs, but to a lesser extent, include research firms, meeting planners and photographers.

Twenty-four of the 38 respondents said their secretaries use word processors to prepare communication materials; 20 of the professional staffers use word processors themselves.

Fifteen respondents had in-house printing facilities. Seventeen used videotape production equipment for employee and policy-making board training, public meetings and media relations. Twenty-four used videotape playback equipment.

While 20 of the Public Communications Committee members had access to a community cable television channel, only 13 used cable for communication programs.

PR Can Be Measured

Public relations is not a nebulous, unmeasurable concept. It is a planned effort and should have goals and objectives as precise as those for a power supply program.

How do you measure the effect of public relations, assess current efforts and plan new programs?

There are many tools available. To measure whether specific utility public relations programs are meeting consumer and utility needs, you can obtain customer feedback through simple surveys—conducted face-to-face, by mail, or over the telephone. You also can try "focus groups" to test ideas, program and products and gauge awareness of utility activities. (See "Try Focus Groups," by May Gerstle, PUBLIC POWER, March-April 1984, p. 47.)

To assess overall public relations programs or determine what is needed to begin a public relations effort, conduct a public relations audit. This device is used by both large and small organizations to determine (1) the role of public relations within the organization; (2) how and with what effect the public relations function is currently carried out; and (3) perceptions of key audiences toward the public relations organization and function.

An audit is a complete analysis of an organization's communications—both internal and external. It probes communication needs, policies, practices, and capabilities, and helps make cost-effective decisions about future objectives.

How to Perform an Audit

Public relations audits can be performed either by utility staff or by an outside consultant. Those done in-house are less expensive, of course, and can be very effective. But they require a high degree of objectivity, which should be considered in determining the best method for you.

'An audit is a complete analysis of an organization's communications—both internal and external.'

Typical audit steps include:

- **Determining what "we" think**—This involves interviewing top and middle managers for their assessments of the strengths and weaknesses of the public relations function, their opinions of who are key publics, and their perspectives on the role of public relations within the utility.
- **Determining what "they" think**—"They" are the utility's key publics—customers, community leaders, news media, city officials and others with whom the utility has

COMMUNICATION BUDGET—1983
(Excluding Salaries) *(in thousands)*

$5-24	$25-50	$50-100	$100-200	$200-400	$400-1,000	above $1,000	no full time
2	3		1				3
2	3						
				2	1		
			1		1		
		1			1	2	
1	2	1			1		
1		1		2			
6**	8	3**	2	4	4	2	3

NUMBER OF PROFESSIONAL COMMUNICATION STAFF—1983

1	2	3	4	5	6	7	8	9	10-15	15-20	20-30	30+
6		1										
4	2	1										
		1	1		1							
	1						1					
		1	1				1			1	1	
2	2	1							1			
1	1	1					1					1
13	6	6	2		1		2	1	1	1	1	1

**Other responding systems did not have a separate communication budget.

relationships. Their views of the organization and its public relations program are important, as are their needs for information. They also should be interviewed.

• **Analyzing communication materials**—This includes publications, films, slide shows, letters, memos, news releases, bulletin boards, employee newsletters, annual reports, bill stuffers and other means to convey information about the utility.

• **Evaluating disparities**—Do "we," "they," and the communication materials provide the same perceptions and answers? Do printed materials reflect management philosophy? Does management philosophy reflect consumer needs? Does the public find the printed materials readable? Is management philosophy clear to middle management? Have adequate budgeting and staffing been allocated to support management philosophy? These are some of the questions which the evaluation should answer.

'Identify what your utility's needs and priorities are.'

The audit results provide information to managers about the strengths and weaknesses of their current communication program. The results should lead to specific recommendations for action to align management philosophy, staff response, and communication materials with consumer needs.

(A good reference on audits is "The Communication Audit," by Joseph A. Kopec, in the May 1982 PUBLIC RELATIONS JOURNAL, published by the Public Relations Society of America, 845 Third Ave., New York, N.Y., 10022. Results of the APPA public relations survey summarized here are available from the Association's public information office.)

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DOING IT ALL AND DOING IT WELL

Tom Dyer enjoys the diversity of his work as a one-person public relations staff. Here he describes a water main break for KAAA-TV *of Austin, Minn. Photo by Rochester (Minn.) Post Bulletin*

"I JUST KEEP DANCING," is how Tom Dyer, customer services/public relations supervisor, Rochester (Minn.) Public Utilities, characterized his job.

There is no typical day for him. He enjoys the fast and varied pace of performing a small commercial audit at 10 a.m., then commenting on the utility's acid rain position for a radio station at 11 a.m.

Dyer said he rarely does the same thing for two consecutive hours. What he does depends on what comes up.

"I classify myself as a firefighter—you go after the biggest flames first," he said. "It may not be the best way to approach the job, but for a small utility, it is the only way."

Dyer has been with the 27,471-meter Rochester public power system since 1974, and for the past eight years has been its one-person public relations department, while also serving as the utility's resource on residential and commercial energy conservation programs. He is the utility's liaison with the four radio and two television stations and one daily newspaper in his area.

The utility recently surveyed customers on their perceptions of utility services. Preliminary results are positive, he said.

He believes it is difficult to measure changes in public power communication programs, but that in recent years local systems are making greater attempts to communicate with customers. Ten years ago, he said, utilities were reacting to customer problems and defending themselves against the news media. Now public power systems are more informative, he said.

Day to day, Dyer is involved in every facet of the communication function. He writes, records, and delivers radio spots to the stations. He researches and writes the annual report. He writes and is the photographer for other printed pieces, such as a quarterly customer newsletter and monthly employee bulletin.

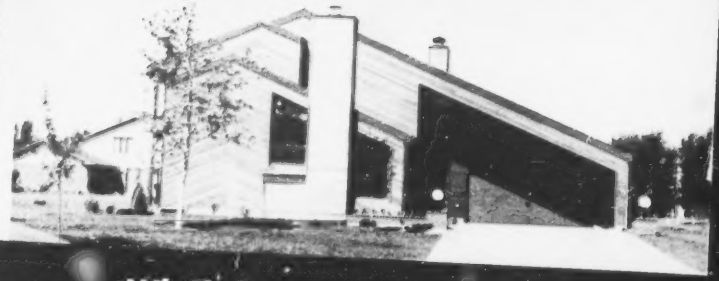
He is also the utility's liaison with customers interested in energy conservation. He speaks on a variety of subjects before service clubs, and conducts utility tours for civic groups, school programs and scout troops. He issues information to the news media, and is the utility's chief spokesman.

Dyer said he thoroughly enjoys the juggling involved. His advice to public power systems ready to establish a full-time public relations staff position:

"Identify what your utility's needs and priorities are. Look at your system as a unique entity and decide what will be most beneficial." MADALYN CAFRUNY.

SEPTEMBER-OCTOBER 1984

publicpower



Which house is superinsulated?

public power

SEPTEMBER-OCTOBER 1984

VOLUME 42 NUMBER 5

Carolyn S. McNeil, general manager of both a joint-action agency and a public power regional association, is but part of the changing face of consumer-owned electric power in Utah. For details see page 25.

FRONT COVER: To learn more about the expanding technology and opportunities for electric utilities in superinsulated housing—and to see which houses pictured are super-insulated—see page 14.

Photos courtesy Harold Orr, Prairie Research Center, Canadian Research Council, Saskatoon, Sask.

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Intolerable freight rate decisions by the Interstate Commerce Commission permit railroads to gouge electric consumers while tightening their monopoly.

10 **INDOOR AIR POLLUTION by Michael K. Bergman and Dennis Mathiason**
Needed reduction of indoor air pollution can benefit electric utilities.

14 **SUPERINSULATION'S ROBUST FUTURE by Dennis Mathiason**
Superinsulated houses, which can be built for only 5 or 6 percent more than conventional homes, provide opportunities for electric systems.

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Negotiation, litigation and a power glut helped Ohio municipal systems obtain more favorable wholesale power and transmission terms from private utilities.

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With Utah Power & Light Co. monopolizing transmission and grasping for their power supply, consumer-owned power systems have bundled their resources.

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Federal taxes actually paid by private utilities don't amount to much.

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The advanced management seminar is back on the utility education course agenda; APPA will publish its first training resources directory.

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APPA members reported a variety of methods to communicate with customers; advisory committees were rated most effective.

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Public Power Salaries Below Those of IOUs, Cooperatives

by JEFF TARBERT
contributing editor, PUBLIC POWER, *and* APPA *director of education and management services*

"*Wanted: Experienced executive to become the president of the $700-million-a-year Memphis (Tenn.) Light, Gas and Water Division.*"

THE SALARY? WELL, UH—how does $55,000 a year sound?

This was not an employment ad. Instead, it was the beginning of an April 12 WALL STREET JOURNAL article on executive pay. Memphis Light, Gas & Water (MLGW) is a big outfit. Yearly revenues of $410 million from its electric division alone place it sixth among public power systems and above many of the nation's 213 investor-owned systems (IOUs). Yet, that salary would not attract a young engineer seeking a junior vice presidency in many IOUs.

The Memphis City Council, which sets utility salaries, rejected pay increases in 1984, stating salaries of the senior staff were competitive with local pay.

Former MLGW Board Chairman George Cates, who had responsibility for finding a new utility president, was quoted in the JOURNAL as saying "... it's humiliating to the city to advertise (for the job) if we run the salary that we're offering."

Is Memphis indicative of public power compensation levels nationwide or merely an aberration?

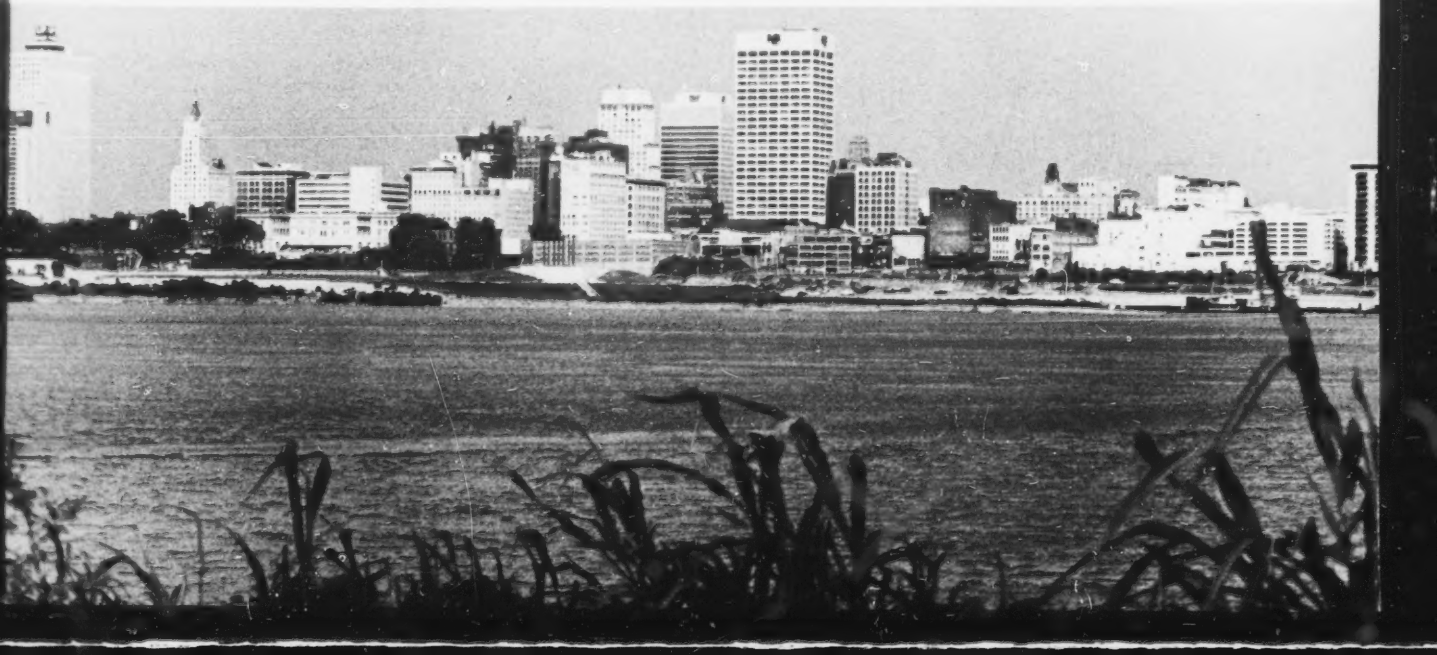
A recent study of electric utility industry pay sponsored by APPA and conducted by the New York firm of Towers, Perrin, Forster & Crosby, suggests Memphis may be more the exception than the rule. The bad news, however, is that when compared nationally, public power salaries trail—as they have historically—pay of comparable cooperatives and investor-owned utilities.

Muni Pay Lags

More than 400 utilities participated in the 1984 survey including: 282 public power tribution cooperatives, 18 generation and transmission cooperatives, and 21 joint-action agencies.

Tables 1 and 2 compare salaries for four municipal and rural electric cooperative (REC) top jobs. Public power pay lagged as much as 22 percent for chief executive positions and averaged 12 percent to 15 percent lower for other posts. It is important to note that RECs are distribution-only systems,

Memphis, Tenn., the 14th largest city in the United States, owns and operates an electric, gas and water utility with annual revenue of about $700 million. Yet until recently its chief executive officer made less than most second-tier officials of smaller private utilities. Salaries paid by public power systems generally lag behind those paid by rural electric cooperatives and investor-owned utilities for comparable positions.



while a portion of the public systems generate electricity.

It was no surprise that comparisons between public power and comparable investor-owned utilities showed an even greater disparity. Tables 3 and 4 list comparisons in two revenue categories. Public power chief executive salaries trail similar IOU salaries from 42 percent to 54 percent. Other public power executive jobs lag IOU positions, but not as much.

Managers Average $71,700

Often the position of greatest significance is the top job—the chief executive officer. In public power systems this is usually the general manager. Pay for this position indicates all compensation levels in the organization. As the "cap" salary, it has a direct effect on all other salaries.

The average base salary for all CEOs reported in this survey was $71,700. Table 5 shows CEO average and median base salary data by type and size of utility.

CEO pay data was also divided into 10 groups based on size of utility, regardless of utility type. The average total compensation levels (base salary plus bonus), excluding other benefits and perquisites, for CEOs for each of these groups appear in the accompanying chart.

National averages are great, but do they "play in Peoria?"

The first question a utility manager or board member is likely to want answered is: "Is our current compensation plan working."

Here are some areas to consider:

- **Is your system attracting needed employees with required skills?**

If not, you may want to check whether your compensation levels are determined by the appropriate market. Utility CEOs are generally recruited nationally. Therefore, competitive pay levels may best be set by using national pay statistics for organizations of comparable size and complexity. These days, engineers are also recruited nationally, while pay rates for craft and technical jobs may be determined by prevailing local wages.

- **Does your compensation program help retain desired employees?**

Again, pay levels that are noncompetitive with a particular job's market may encourage talented staff to look elsewhere. Another factor contributing to turnover is lack of internal equity. Jobs distinct in scope of responsibility which offer no significant pay variance may frustrate workers and discourage assumption of greater responsibility. Compression, or "salary squeeze," where there is little pay increment for higher levels

continued on page 34

Table 1. PUBLIC POWER VS. RURAL ELECTRIC CO-OPS
Comparison of Average Base Salaries (000)

Position	*Public Power $5-$15 Million (rev.)*	*Distribution Co-ops Under $20 Million (rev.)*	*Difference (%)*
Chief Executive Officer	$41.2	$52.6	−22%
Top Operations	33.0	37.1	−11
Top Engineering	32.1	36.8	−13
Top Finance	30.8	36.6	−16

Table 2. PUBLIC POWER VS. RURAL ELECTRIC CO-OPS
Comparison of Average Base Salaries (000)

Position	*Public Power $15-$50 Million (rev.)*	*Distribution Co-ops $20 Million + (rev.)*	*Difference (%)*
Chief Executive Officer	$51.5	$66.0	−22%
Top Operations	40.1	44.3	− 9
Top Engineering	39.2	41.9	− 6
Top Finance	36.3	41.0	−11

Table 3. PUBLIC VS. INVESTOR-OWNED UTILITIES
Comparison of Average Base Salaries (000)

Position	*Public Power $50-$200 Million (rev.)*	*Investor-owned Under $200 Million (rev.)*	*Difference (%)*
Chief Executive Officer	$61.7	$107.7	−42%
Top Operations	50.7	58.8	−14
Top Engineering	47.9	52.4	− 9
Top Power Production	51.9	57.8	−10
Top Finance	45.7	66.2	−31

Table 4. PUBLIC VS. INVESTOR-OWNED UTILITIES
Comparison of Average Base Salaries (000)

Position	*Public Power $200 Million and over (rev.)*	*Investor-owned $200 Million to $1 Billion (rev.)*	*Difference (%)*
Chief Executive Officer	$87.8	$192.1	−54%
Top Operations	60.0	86.6	−31
Top Engineering	57.5	70.0	−18
Top Power Production	65.8	75.0	−12
Top Finance	62.4	92.3	−32

Table 5. SALARIES OF CHIEF EXECUTIVE OFFICERS

Type and Revenue of Utility	*Number of CEOs*	*Average Base Salary (000)*	*Median Base Salary (000)*
Public/Municipal			
Under $5 Million	73	$31.9	$32.0
$ 5-$15 Million	85	41.2	41.6
$ 15-$50 Million	74	51.5	52.0
$ 50-$200 Million	30	61.7	63.6
$200 Million and Over	16	87.8	83.7
Investor-Owned			
Under $200 Million	13	107.0	97.1
$200 Million-$1 Billion	24	192.1	190.0
$1 Billion and Over	18	288.1	297.5
Rural Electric Co-op			
Under $20 Million	15	52.6	50.1
$20 Million and Over	17	66.0	65.0

continued from page 31

of responsibility, is particularly detrimental for first-level supervisors whose subordinates—with a minimum of overtime—make more money, or for CEOs with little pay distinction between themselves and the second-in-command.

- **Does your pay plan motivate?**

Pay for performance is a sticky issue for government agencies such as public power systems and is difficult to administer in any organization. However, organizations that provide similar rewards for excellent as well as average performance soon find high performers contributing less or moving on.

Another question is whether your merit pay plan encourages performance in line with organization priorities. While it may be appropriate to reward a secretary or technical staff member for short-term accomplishments, this schedule may send the wrong signal to a project director or manager whose worth is really measured by the success of longer-term undertakings.

- **Do you have a compensation philosophy?**

Just as merit increases should encourage performance in keeping with organization priorities, so too should compensation philosophy. It is paradoxical for a system to strive for the best service and lowest rates and yet pay wages that are average or less in comparison to competing organizations.

As HARVARD BUSINESS REVIEW editor Kenneth Andrews told utility policy makers at the APPA National Conference in Boston in June, the board's role in relation to management is "to provide support, encouragement, and certainly compensation, which is either absurdly low in your organizations or the product of very modest expectations."

- **Is pay in line with public policy?**

Whatever determinations are made on the above questions, ultimately public power salaries must be acceptable to local governing bodies and the public.

Memphis Revisits Salaries

Although low pay in Memphis was a well-known problem, a January recommendation from the MLGW board of directors to the City Council for pay increases was not adopted. The proposal was a victim of unfortunate circumstances as much as anything. At the time of the recommendation, the 13-member (four newly elected) council was acutely sensitive to public sentiment as colder-than-normal weather brought the highest heating bills in MLGW's history. It was no surprise that neither council nor the public could stomach a higher-than-inflation "catch-up" pay raise for utility staffers.

A BUSINESS WEEK-Harris survey (June 25, 1984) of public attitudes toward executive pay showed people are more tolerant of executive pay increases when organizations are judged to be "economically or socially useful, progressive, or well-managed."

Apparently MLGW took these perceptions to heart. Former Chairman Cates said the utility instituted a number of programs focused on customers needs and increased awareness of the value and services offered by MLGW.

A program to inform the City Council of the quality and efficiency of utility operations was also undertaken. Subsequent requests for compensation increases included direct comparisons of MLGW rates and productivity measures as well as pay with comparable organizations nationwide.

The results have been positive. The top salary at MLGW was raised to $65,000. On July 24 the City Council approved pay increases for senior managers (vice presidents) an average of 9.5 percent as part of a program to begin elevating utility compensation to competitive levels. A significant factor in the council's unanimous decision, according to new President Larry Papasan, was emphasis by the utility on a long-range program oriented toward its customers. *(Copies of the 1984 electric utility compensation survey may be obtained from the American Public Power Association publications department.*

This announcement appears as a matter of record only. July 1984

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IOUs' Tax Records Refute Their Claims

by **JOHN KELLY**, *economics editor*, PUBLIC POWER, *and* APPA *staff economist*

REPORTS FILED BY INVESTOR-OWNED utilities (IOUs) with the Federal Energy Regulatory Commission (FERC) reveal that their federal income taxes were only 7.5 percent of their 1981 before-tax incomes. The IOUs analyzed here are part of the 111 largest electric utility systems, having $250 million or more in total operating revenues. Although some of the revenues of these utilities come from gas operations, most—86 percent—comes from electricity. The electric revenues of these utilities represent about 93 percent of the electric revenues of all private electric utilities.

The 7.5 percent tax rate for the IOUs is their "effective tax rate." It is based on the federal taxes IOUs reported being charged by the Internal Revenue Service (IRS) expressed as a proportion of their 1981 before-tax accounting income. The federal income tax charges used here are the amounts IOUs reported payable to the government.

These 111 utilities reported charges of $1.3 billion in federal income taxes, and had an estimated before-tax income of $17.4 billion, resulting in the effective tax rate of 7.5 percent. The $1.3 billion in tax charges equals 1.2 percent of operating revenues.

That the effective rate for IOUs was far below the nominal, or statutory, corporate rate of 46 percent is not surprising; this was true for most corporations. But it is noteworthy that the average effective rate for IOUs was far below—by almost two-thirds—the rate for all corporations: 7.5 percent *vs.* about 20 percent.

IOUs contend their federal income tax expense for 1981 was much higher than the $1.3 billion in federal income tax charges they reported. This is because the $1.3 billion figure does not include deferred tax amounts which, they say, will eventually be paid. Below it will be shown that deferred taxes are, in effect, indefinitely postponed, and it is appropriate to ignore them when estimating the actual federal income taxes charged on IOU income. In fact, the reported charges ($1.3 billion), which exclude deferred taxes, may overstate the IOUs' eventual tax liability for a given year.

Large IOUs Had Low Tax Rates

The largest of the 111 utilities in terms of total utility operating revenues was Pacific Gas & Electric Co.(PG&E) with $7.2 billion. PG&E had a before-tax income of $628 million in 1981 and reported $41 million in federal tax charges on that income, for an effective tax rate of 6.5 percent. This low rate was representative of the average rate on the incomes of the 35 largest IOUs with operating revenues of $1 billion or more. Their average effective rate was 6.4 percent.

The largest utility in terms of before-tax income was Consolidated Edison Co. of New York. Con Ed had $673 million in income and reported $191 million in federal tax charges on its two-thirds of a billion dollar income, for an effective tax rate of 28.4 percent. This relatively high rate for Con Ed was not, however, typical of rates of other utilities with sizable before-tax incomes.

Southern California Edison Co. had the second highest before-tax income, $634 million, and reported $34 million in federal income tax charges, for an effective tax rate of 5.4 percent. PG&E ranked third in income and, as mentioned, had a 6.5 percent effective tax rate. It was followed by Commonwealth Edison Co.(Illinois) which had $584 million in before-tax income and $12 million in federal income tax charges, for a tax rate of 2.1 percent. The average rate for 13 IOUs with the largest before-tax incomes, $300 million or more, was 7.3 percent.

The smallest of the 111 utilities in terms of operating revenues was El Paso Electric, with $250 million. It reported $5 million in federal tax charges on a before-tax income of $88 million, for an effective tax rate of 5.4 percent. The average effective tax rate for the 44 utilities with revenues between $250 million and $500 million was 11.9 percent.

Eighteen of the utilities reported negative tax charges. They reported incurring no federal tax liability on their 1981 incomes and, in many cases, they accrued tax allowances that could be used to offset future or previous years' tax liabilities. Fifty-three of the utilities had effective tax rates from zero to 10 percent, and 20 had rates between 10 percent and 20 percent. Only 20 utilities had effective rates above 20 percent.

Why IOU Rates Are So Low

Two major items which contribute to low IOU tax rates are investment tax credits (ITCs) and tax deferrals. In 1981 these 111 utilities took $1.4 billion in investment tax credit deductions, and recorded $2.2 billion in net tax deferrals.

Investment tax credits are direct, permanent reductions in a utility's calculated tax liability for a given year. Also, the unused

'Deferred taxes are, in effect, indefinitely postponed, and it is appropriate to ignore them when estimating the actual federal income taxes charged on IOU income.'

credits of one year can be used to reduce other years' tax liabilities. Houston Lighting and Power Co. took advantage of more than $61 million in ITCs in 1981, along with $61 million in deferred taxes, to help reduce its tax rate to 10.7 percent. Duke Power Co. coupled $51 million in ITCs with $54 million in deferred taxes to help it pay an effective federal income tax rate of 2.8 percent.

Other utilities with sizable ITCs were Georgia Power Co., with $49 million in credits which helped lower its tax rate to 2.2 percent, and Florida Power & Light Co., whose $48 million in ITCs helped lower its effective tax rate to 8.5 percent.

Of the $2.2 billion in deferred taxes accumulated by the 111 utilities, Carolina Power & Light Co.(CP&L) deferred the most—$156 million. Although CP&L had $324 million in before-tax income, it reported no positive federal income tax charges on 1981 income; instead, it reported more than $5 million in negative charges for a negative tax rate of 1.6 percent.

Public Service Electric & Gas Co. of New Jersey and Northern Indiana Public Service Co.(NIPSCO) were each able to defer more than $100 million in federal income taxes in 1981. The New Jersey company deferred $111 million in taxes, which helped lower its tax rate to 1.6 percent on $387 million of before-tax income. NIPSCO deferred $102 million in tax charges which helped it attain a negative tax rate of 11.7 percent on an income of $139 million. The few negative deferred tax amounts for some utilities are atypical instances where a utility's tax deferrals from previous years more than offset new deferrals.

Georgia Power had the highest combination of deferred taxes and ITCs, $140 million. These tax breaks were $132 million more than the $8 million in federal income taxes the utility reported being charged. This situation of a utility receiving more in tax breaks than it was charged in taxes was the typical case for the 111 utilities. They reported a total of $3.5 billion worth of ITC and deferred tax breaks, but only $1.3 billion in federal tax charges on their 1981 income.

Tax Deferred Indefinitely

IOUs claim deferred taxes that result from investment in utility plant must be paid to the U.S. Treasury later in the plant's life so the same amount of taxes are paid over the life of the plant. If this were true it would mean the income tax liability of a utility is not reduced by a tax deferral and the deferral has no effect on the utility's tax rate; the tax is just paid a little later. In practice, however, things work out much differently. The practical effect of the tax deferral process is to indefinitely postpone most or all of a utility's reported deferred taxes. This, in turn, reduces a utility's effective tax rate.

Tax deferrals accrue on utilities' books because they use accelerated depreciation for federal income tax reporting and straight-line depreciation for standard (book) financial reporting. The use of accelerated depreciation for tax reporting means higher depreciation expenses, lower taxable income, and, consequently, lower federal tax payments in the early years of a plant's life. In later years, however, tax depreciation expenses are lower and taxable income and tax charges higher. The purpose of deferred tax entries on utilities' books is to allocate to early years of a capital investment's life some of the tax charges expected to come due in later years.

For a one-time investment, such as a single piece of equipment which is not replaced, deferred taxes would eventually be paid. But when a utility replaces plant that has depreciated, or it increases the level of net plant, the result is to indefinitely postpone most or all of the deferred taxes accrued over the years.

Although previously deferred taxes will eventually come due, they can be partially or totally offset by new deferrals. For example, even though the 111 utilities had about $2.5 billion of previously deferred taxes that came due on their books in 1981, this amount was offset by $4.7 billion in new 1981 deferrals. This resulted in "net" tax deferrals of $2.2 billion for the year—$2.2 billion that utilities recorded as federal income tax expense but did not pay to the U.S. Treasury.

Even though the deferred tax amounts reported on utilities' books for a particular year are not tax liabilities recognized by and payable to the IRS, the IOUs contend deferred tax amounts should be viewed as part of their total tax charges (expenses) for a given year. If viewed this way, the total income tax charges (expenses) of utilities for a year would equal (1) the amount charged and recognized by the IRS as payable for that year, plus (2) the net deferred tax amounts that utilities say they will eventually have to pay.

For example, for a utility such as Commonwealth Edison, which reported $12 million in federal income tax charges by the IRS in 1981 and $99 million in net deferred income taxes, the private utilities would contend the $99 million in deferred taxes will eventually be paid to the IRS. The deferred tax amount, they would say, should be regarded as a part of the utility's 1981 tax expense along with the $12 million in taxes that Commonwealth Edison was charged by the IRS, for a total of $111 million.

It cannot be determined from a single year's tax experience whether utilities eventually pay net deferred taxes. But if they are eventually paid to the IRS, then over a period of several years it is reasonable to expect the actual tax payments of utilities to approximate the total of (1) the federal income tax charges recognized by the IRS, plus (2) the net deferred tax amounts utilities contend they eventually pay. That is, it is reasonable to expect this if, in fact, the utilities are

IOU Tax Breaks

Accelerated Depreciation—This tax break allows the largest proportion of an asset's cost to be written off, for tax purposes, in the earliest years of its useful life. For a capital-intensive industry such as electric utilities, this results in an indefinite postponement of the deferred taxes accrued in a particular year. This break was worth $1.9 billion to utilities in 1982.

Investment tax credit—ITCs reduce federal income tax liability equal to a specified percentage of the cost of qualifying plant and equipment placed in service during the current year. This tax break was worth $2.4 billion to private electric utilities in 1982.

Pollution control bonds—The federal tax code allows electric utilities and other businesses to use tax-exempt bonds to finance investments in pollution control facilities. For 1982, this tax break is estimated to be worth more than $500 million to electric utilities.

Dividend reinvestment—Stockholders of investor-owned utilites may annually reinvest up to $1,500 in dividends in new stocks, thereby deferring any payment of taxes until the stock is sold, when it is generally taxed at a much lower capital gains rate. It is estimated that this tax break will be worth more than $400 million to IOUs in 1984.

State	Company	Total Utility Operating Revenues (000)	Utility Income Before Federal Income Taxes* (000)	Deferred Income Taxes (net) (000)	Investment Tax Credits (net) (000)	Federal Income Taxes Charged to Utility (000)	Federal Income Taxes Paid by Utility (000)	Federal Income Taxes Charged as % of Utility Income Before Income Taxes
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Ala.	Alabama Power	$1,598,544	$230,472	$82,724	$27,701	$−17,791	$−10,915	−7.7
Ariz.	Arizona Public Service	882,154	217,073	4,718	0	8,206	4,617	3.8
	Tucson Electric Power	350,468	166,879	12,519	22,068	40,150	5,345	24.1
Ark.	Arkansas Power & Light	974,734	160,811	35,267	21,311	6,469	4,734	4.0
Cal.	Pacific Gas & Electric	7,212,717	628,247	−2,945	598	41,055	107,961	6.5
	San Diego Gas & Electric	1,285,051	118,016	−2,294	10,138	−2,971	18	−2.5
	Southern California Edison	4,055,087	633,516	33,639	50,386	33,951	19,584	5.4
Colo.	Public Service of Colorado	1,219,292	166,703	17,965	25,743	20,445	14,172	12.3
Conn.	Connecticut Light & Power	910,217	76,070	7,937	4,552	−1,311	−2,327	−1.7
	Hartford Electric Light	455,619	46,640	1,936	3,340	413	49	.9
	United Illuminating	451,022	72,584	2,379	7,254	9,338	8,948	12.9
Del.	Delmarva Power & Light	608,168	100,204	7,529	18,373	10,585	7,925	10.6
D.C.	Potomac Electric Power	1,000,510	183,913	34,292	16,212	19,560	−2,806	10.6
Fla.	Florida Power Corp.	1,278,297	201,102	37,791	32,945	10,974	6,313	5.5
	Florida Power & Light	3,088,620	393,945	77,869	47,792	33,670	15,609	8.5
	Gulf Power	321,197	58,130	6,937	9,748	8,589	6,325	14.8
	Tampa Electric	617,396	88,490	6,553	4,656	25,460	20,800	28.8
Ga.	Georgia Power	2,020,876	367,716	91,079	48,848	7,912	9,241	2.2
Hawaii	Hawaiian Electric	560,160	49,787	5,672	186	11,820	6,909	23.7
Idaho	Idaho Power	299,706	68,980	12,803	5,293	1,836	3,247	2.7
Ill.	Central Illinois Light	439,102	67,976	12,582	2,996	14,271	4,178	21.0
	Central Illinois Public Service	529,391	103,925	20,065	13,877	5,046	4,243	4.9
	Commonwealth Edison	3,738,040	583,507	98,896	16,078	12,022	7,042	2.1
	Illinois Power	964,292	194,246	20,834	24,889	15,116	10,000	7.8
Ind.	Indiana & Michigan Electric	801,077	155,994	35,788	9,247	6,544	3,881	4.2
	Indianapolis Power & Light	336,584	78,627	15,361	3,189	12,369	12,083	15.7
	Northern Indiana Public Service	1,556,255	139,303	102,081	−25,379	−16,324	3,100	−11.7
	Public Service Co. of Indiana	720,126	231,585	42,852	26,772	7,456	5,980	3.2
Iowa	Interstate Power	259,969	41,379	3,066	818	13,268	12,538	32.1
	Iowa Electric Light & Power	345,590	36,768	9,391	3,723	−1,350	1,300	−3.7
	Iowa-Illinois Gas & Electric	416,796	74,077	4,527	11,361	7,449	10,969	10.1
	Iowa Power & Light	326,335	45,332	1,401	3,169	1,622	1,463	3.6
	Iowa Public Service	329,175	56,624	6,472	9,724	5,261	2,323	9.3
Kan.	Kansas Gas & Electric	313,093	75,753	7,700	−1,647	3,317	703	4.4
	Kansas Power & Light	430,433	88,565	12,095	14,825	3,876	6,830	4.4
Ky.	Kentucky Utilities	431,905	72,225	11,188	13,776	5,206	2,737	7.2
	Louisville Gas & Electric	493,937	82,871	12,494	16,991	5,791	14,112	7.0
La.	Central Louisiana Electric	260,642	36,670	591	4,437	4,724	2,285	12.9
	Gulf States Utilities	1,278,771	188,236	−6,251	32,029	7,963	8,020	4.2
	Louisiana Power & Light	1,117,761	187,885	−1,509	43,109	11,496	10,288	6.1
	New Orleans Public Service	489,983	16,962	−2,025	1,361	7,088	2,668	41.8
Maine	Central Maine Power	361,670	42,967	9,584	725	−1,085	1,334	−2.5
Md.	Baltimore Gas & Electric	1,421,056	238,548	8,642	22,581	57,282	67,820	24.0
	Potomac Edison	450,754	60,660	7,649	2,188	14,022	10,966	23.1
Mass.	Boston Edison	1,049,596	118,878	56,075	−3,340	−7,081	0	−6.0
	Massachusetts Electric	874,325	51,329	4,405	3,417	17,129	16,363	33.4
	New England Power	933,671	107,274	35,464	16,115	−7,709	2,634	−7.2
	Western Massachusetts Electric	260,634	28,815	−4,349	9,281	2,000	732	6.9
Mich.	Consumers Power	2,668,915	266,542	−2,243	27,661	−6,665	−4,177.0	−2.5
	Detroit Edison	2,051,913	298,892	53,886	6,452	4,201	1,750	1.4
Minn.	Minnesota Power & Light	352,750	83,253	14,691	16,234	4,417	2,114	5.3
	Northern States Power	1,206,046	239,675	16,629	17,994	57,228	61,740	23.9
Miss.	Mississippi Power	331,755	61,646	7,750	3,204	16,718	16,764	27.1
	Mississippi Power & Light	531,843	58,989	−5,970	7,845	18,546	14,804	31.4
Mo.	Kansas City Power & Light	472,750	124,642	24,698	13,460	4,704	6,677	3.8
	Union Electric	971,071	230,788	72,032	10,866	−7,946	6,412	−3.4
Mont.	Montana Power	352,064	72,963	8,661	2,301	−737	2,207	−1.0
Nev.	Sierra Pacific Power	269,784	38,343	3,494	5,486	3,677	1,865	9.6
N.H.	Public Service of New Hampshire	440,884	81,874	5,738	−3,305	−1,580	30	−1.9
N.J.	Atlantic City Electric	469,683	74,321	5,951	7,432	13,950	8,582	18.8
	Jersey Central Power & Light	1,013,595	26,726	24,666	−2,347	−7,462	0	−27.9
	Public Service Electric & Gas	3,471,652	386,475	111,136	4,999	6,188	11,534	1.6
N.M.	Public Service of New Mexico	336,165	144,917	−478	18,809	13,040	5,129	9.0
N.Y.	Central Hudson Gas & Electric	444,882	38,482	125	2,579	6,099	3,375	15.8

State	Company	Total Utility Operating Revenues (000)	Utility Income Before Federal Income Taxes* (000)	Deferred Income Taxes (net) (000)	Investment Tax Credits (net) (000)	Federal Income Taxes Charged to Utility (000)	Federal Income Taxes Paid by Utility (000)	Federal Income Taxes Charged as % of Utility Income Before Income Taxes
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Consolidated Edison	4,876,907	672,966	−260	34,300	190,900	103,812	28.4
	Long Island Lighting	1,730,632	307,031	26,007	31,406	1,885	50	.6
	New York State Electric & Gas	767,539	142,174	21,122	6,740	6,511	3,667	4.6
	Niagara Mohawk Power	2,133,879	247,373	−1,768	21,501	6,996	5,897	2.8
	Orange & Rockland Utilities	393,874	43,399	3,587	1,640	7,800	5,200	18.0
	Rochester Gas & Electric	610,102	74,731	−1,023	7,195	3,246	7,841	4.3
N.C.	Carolina Power & Light	1,343,558	324,026	155,755	−28,569	−5,293	6,570	−1.6
	Duke Power	1,913,228	464,968	53,641	51,064	12,927	14,229	2.8
Ohio	Cincinnati Gas & Electric	1,002,053	136,517	20,498	17,692	−4,261	−4,710	−3.1
	Cleveland Electric Illuminating	1,012,930	207,132	26,266	17,640	7,492	3,458	3.6
	Columbus & Southern Ohio Electric	629,244	106,558	10,865	13,687	2,638	2,519	2.5
	Dayton Power & Light	784,442	130,475	9,484	21,138	5,793	2,725	4.4
	Ohio Edison	1,122,322	232,380	36,648	−1,332	0	−7	0.0
	Ohio Power	1,231,841	167,179	17,395	1,660	5,213	5,428	3.1
	Ohio Valley Electric	303,329	2,411	−102	0	925	−2,004	38.4
	Toledo Edison	442,284	125,170	12,948	9,699	8,579	2,369	6.9
Okla.	Oklahoma Gas & Electric	826,117	148,653	26,354	22,718	16,770	9,050	11.3
	Public Service of Oklahoma	616,200	89,382	67,667	−12,829	−22,416	2,477	−25.1
Ore.	Pacific Power & Light	721,861	166,689	−1,065	2,939	−5,059	7,317	−3.0
	Portland General Electric	594,789	163,289	20,271	22,422	6,531	11	4.0
Pa.	Duquesne Light	786,229	166,671	25,022	13,041	8,996	9,400	5.4
	Metropolitan Edison	478,744	22,533	−13,353	−251	337	0	1.5
	Pennsylvania Electric	579,086	88,407	10,837	6,673	17,567	5,500	19.9
	Pennsylvania Power & Light	1,133,425	251,103	−28,351	14,782	15,611	2,809	6.2
	Philadelphia Electric	2,423,895	342,520	909	24,389	25,221	27,719	7.4
	UGI	330,336	41,698	−2,035	2,347	7,579	2,426	18.2
	West Penn Power	738,378	145,305	17,462	6,886	26,673	18,755	18.4
R.I.	Narragansett Electric	289,497	18,973	1,500	1,002	6,380	6,193	33.6
S.C.	South Carolina Electric & Gas	759,687	128,128	17,696	19,129	5,522	7,003	4.3
Texas	Central Power & Light	793,942	149,076	24,823	9,365	21,205	7,608	14.2
	Dallas Power & Light	623,733	127,417	8,224	11,220	29,823	7,500	23.4
	El Paso Electric	250,379	87,572	13,049	12,497	4,744	3,288	5.4
	Houston Lighting & Power	2,769,215	411,183	61,049	60,764	44,168	26,250	10.7
	Southwestern Electric Power	471,898	113,697	19,550	10,345	15,939	5,290	14.0
	Southwestern Public Service	546,595	78,224	8,971	5,754	69	8,735	0.1
	Texas Electric Service	941,840	246,925	19,187	19,348	53,356	57,360	21.6
	Texas-New Mexico Power	275,439	10,139	2,610	2,430	−833	335	−8.2
	Texas Power & Light	1,183,659	284,830	25,768	19,907	56,879	37,197	20.0
Utah	Utah Power & Light	664,013	164,976	26,921	17,073	5,131	5,258	3.1
Va.	Virginia Electric & Power	2,161,853	339,165	71,811	6,711	22,753	−1,014	6.7
Wash.	Puget Sound Power & Light	408,747	121,803	5,784	15,244	4,065	4,050	3.3
	Washington Water Power	317,661	60,094	770	7,940	4,687	2,354	7.8
W. Va.	Appalachian Power	1,203,106	176,499	11,512	26,091	5,042	6,444	2.9
	Monongahela Power	439,393	58,083	2,412	3,697	12,303	6,188	21.2
Wis.	Wisconsin Electric Power	879,447	160,842	−467	14,453	31,557	24,000	19.6
	Wisconsin Power & Light	451,602	79,280	204	8,959	23,119	12,115	29.2
	Wisconsin Public Service	492,262	61,016	0	11,616	7,721	7,175	12.7
	TOTAL	$110,957,742	$17,353,449	$2,176,360	$1,365,719	1,302,298	$1,066,984	7.5

*Utility income before federal income taxes is the sum of utility net income, deferred income taxes, investment tax credits and federal and other income taxes.

Sources: U.S. Energy Information Administration, STATISTICS OF PRIVATELY OWNED ELECTRIC UTILITIES, 1981 Annual; and FERC Form No. 1. All data taken or calculated from STATISTICS OF PRIVATELY OWNED ELECTRIC UTILITIES except "Federal Income Taxes Paid," for all utilities, and "Taxes Charged," for Metropolitan Edison, taken directly from Form 1.

paying the deferred tax amounts.

The table on page 48 presents data covering the 10-year period from 1972 through 1981 for the 10 largest utilities in terms of total operating revenues. It compares the total of federal income taxes charged these utilities by the IRS and their net tax deferrals to the federal income taxes they actually paid. As it turns out, the tax payments of these utilities do not even equal their reported tax charges (which exclude net deferrals) for these years. Nine of the 10 utilities paid less federal income taxes than they reported being charged. The 10 reported a total of $2.4 billion in tax charges over this period, but made payments of only $1.7 billion—$700 million less than they reported they were charged. And the $1.7 billion in actual payments was $4 billion less than the $5.7 billion total of IRS tax charges and net deferred taxes for these years.

These data indicate the tax charges (excluding net deferred taxes) reported by IOUs are generous estimates of federal income taxes they eventually pay, and do not, as they suggest, understate their true federal income tax expenses. Also, effective tax rates computed here which use federal income tax charges reported by the utilities, and which exclude deferred taxes, are appropriate indicators of an IOU's federal income tax liability.

Several factors may explain why the taxes eventually paid by these utilities are much lower than those charged. One is a timing difference between when taxes are charged on income and when the dollars are transferred to the IRS. However, over a 10-year period this should have a minor impact.

'Nine of the 10 largest utilities paid less federal income taxes than they reported being charged.'

Other more important factors would be the carry-forward and carry-back of investment tax credits along with changes in statutory tax rates. Also, tax charges reported to the FERC are estimates by the IOUs of their previous year's tax liabilities.

	1972-1981			
	(1) Federal Income Tax Charges (000s)	*(2) Deferred Taxes (net) (000s)*	*(3) Total (Cols. 1 and 2) (000s)*	*(4) Federal Income Tax Payments (000s)*
Commonwealth Edison Co.	$140,231	$800,790	$941,021	$ 68,579
Consolidated Edison of New York	551,415	254,322	805,737	428,821
Consumers Power Co.	57,846	263,079	320,925	56,638
Florida Power & Light Co.	213,451	592,056	805,507	92,684
Houston Lighting & Power Co.	429,885	312,982	742,867	343,514
Pacific Gas & Electric	506,008	–29,450	476,558	316,538
Philadelphia Electric Co.	93,946	207,343	301,289	96,513
Public Service Electric & Gas Co.	27,279	655,558	682,837	26,172
Southern California Edison Co.	302,988	14,167	317,155	230,085
Virginia Electric & Power Co.	52,117	291,487	343,604	14,638
Total	$2,375,166	$3,362,334	$5,737,500	$1,674,182

Sources: Individual company Form 1 reports to the Federal Energy Regulatory Commission, 1972 through 1981, and *Statistics of Privately Owned Electric Utilities* (annual publications, 1972 through 1981, Federal Power Commission and DOE/EIA).

IOU Claim Inaccurate

IOU spokesmen claim private utilities paid $2.5 billion in deferred taxes to the U.S. Treasury in 1981. This claim is inaccurate. The $2.5 billion figure is an accounting entry on the books of the IOUs; it does not represent actual cash payments. To contend that this deferred tax amount is an actual cash payment misrepresents the accounting basis used by businesses and required of utilities by the FERC. Transactions are recorded on an accrual basis, not a cash basis as the IOU representation of the $2.5 billion implies. Moreover, the $2.5 billion figure cited by the IOUs ignores the $4.8 billion in new tax deferrals accrued on the books of IOUs in 1981, resulting in net tax deferrals of $2.3 billion. (This $2.3 billion figure differs slightly from the previously mentioned $2.2 billion amount because the $2.3 billion refers to virtually all of the IOUs and the $2.2 billion pertains to those that collect approximately 93 percent of IOU's electric operating revenue.)

Finally, the total amount of federal income taxes that utilities reported paying in 1981—dollars transferred to the federal government—was about $1.1 billion, not $2.5 billion. This $1.1 billion figure is the amount of payments reported by the 111 utilities reviewed here. However, it is unlikely that the relatively small private utilities which account for only 7 percent of IOU's electric operating revenue would make up the $1.4 billion difference between the deferred taxes the industry says it paid ($2.5 billion) and the payments reported by the 111 utilities ($1.1 billion).

More Low Tax Rates Likely

The low 1981 effective tax rate of 7.5 percent for IOUs is the continuation of a general trend that began more than 20 years ago. Their effective federal tax rate fell from about 48 percent during the early 1950s to 40 percent by the late '50s, 36 percent by the late '60s, 20 percent in the early '70s and below 10 percent by the mid-'70s. Given the favorable corporate tax legislation enacted by the Congress in recent years, the low effective tax rates for IOUs can be expected to continue.

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